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THE
Diseases of Women,

JOHN KEMPER, M. D.

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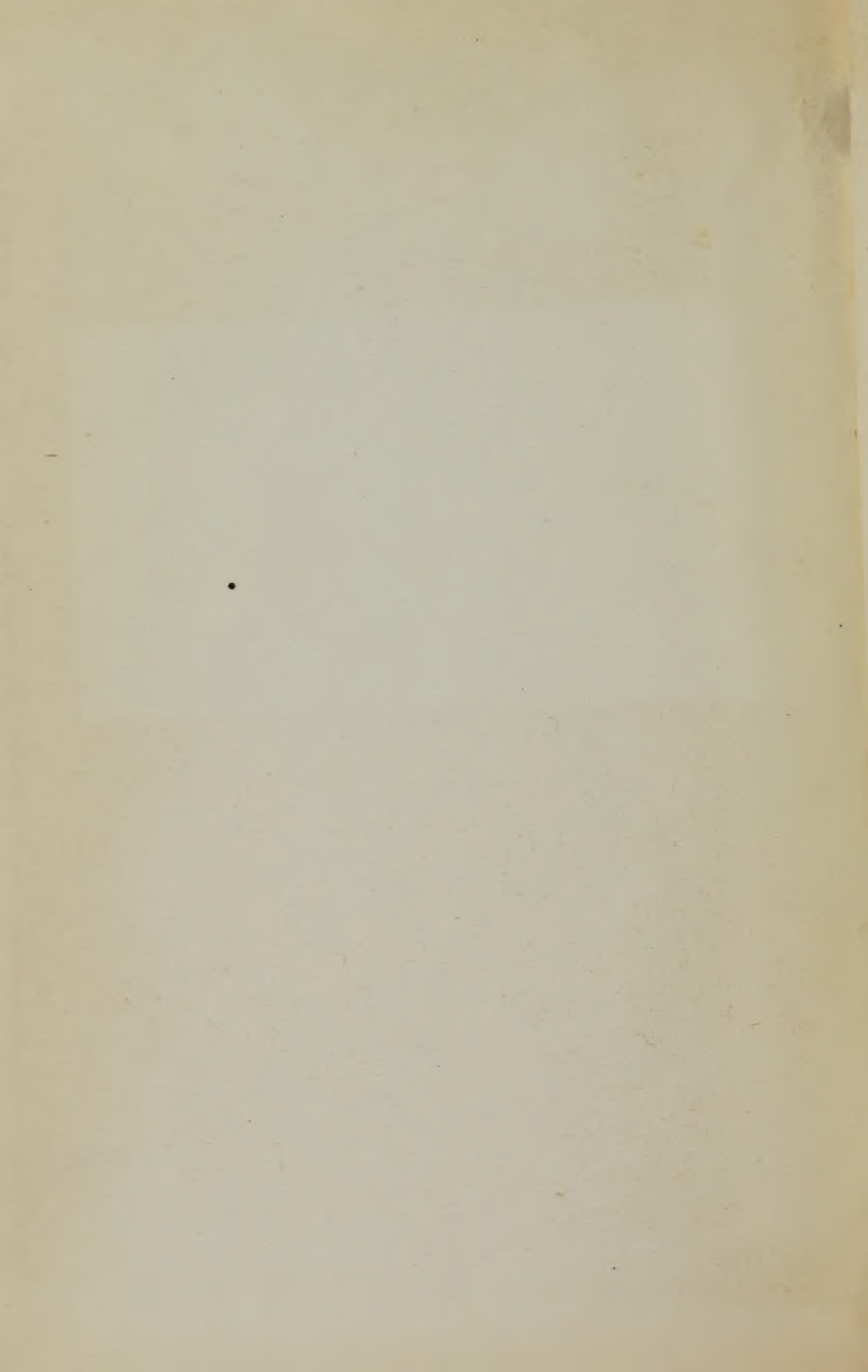
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Section

No. 113,
W. D. S. G. O.

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8-513



DISEASES OF WOMEN.

A TREATISE
ON THE
DISEASES OF WOMEN,
THEIR SYMPTOMS AND TREATMENT,

OR

PHYSIOLOGY OF THE FEMALE ORGANS OF GENERATION AND
REPRODUCTION, BOTH ANIMAL AND VEGETABLE,
WRITTEN WITH ESPECIAL REFERENCE TO THE MENSES AND
THE MORBID CONDITIONS FOLLOWING THEM.

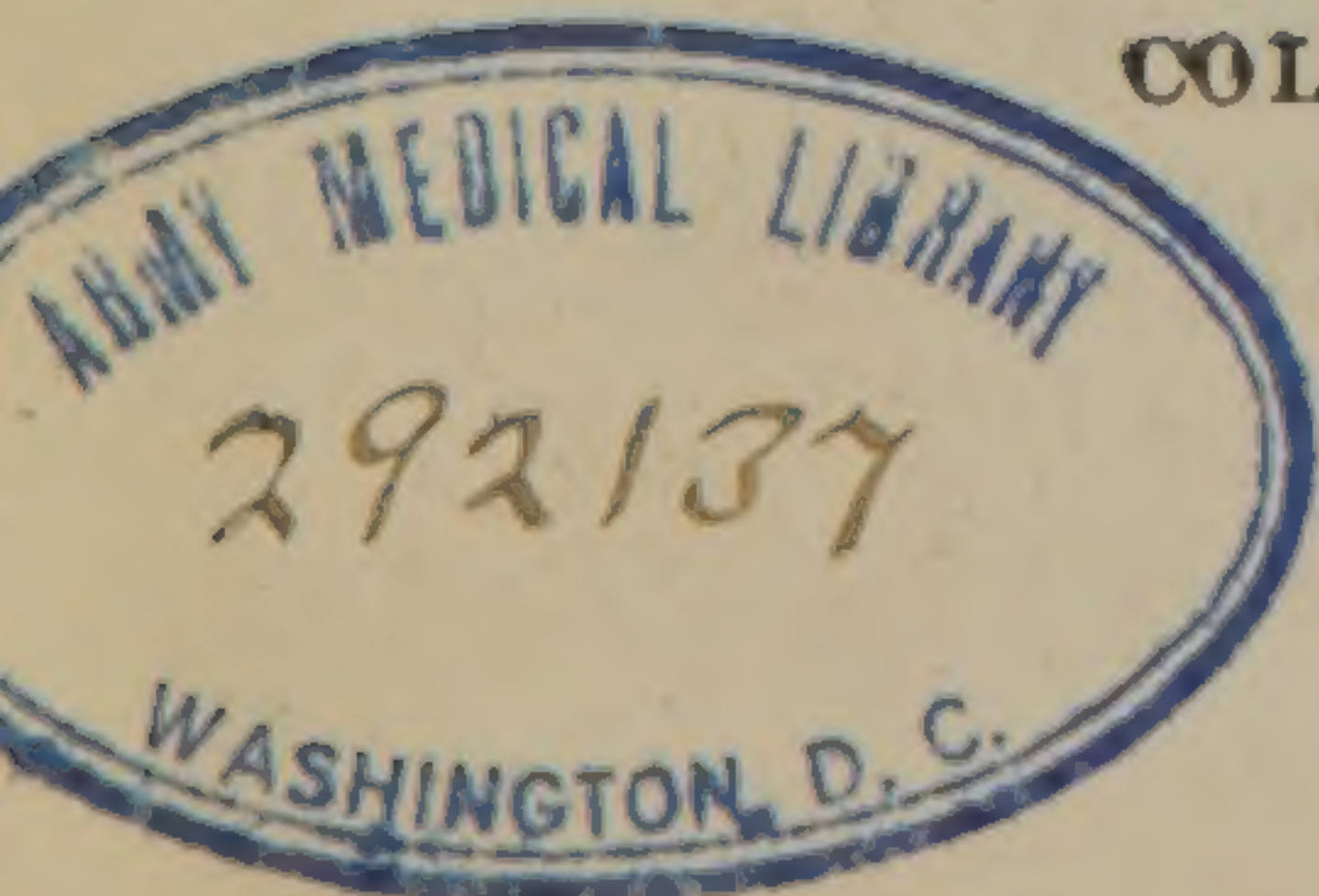
BY

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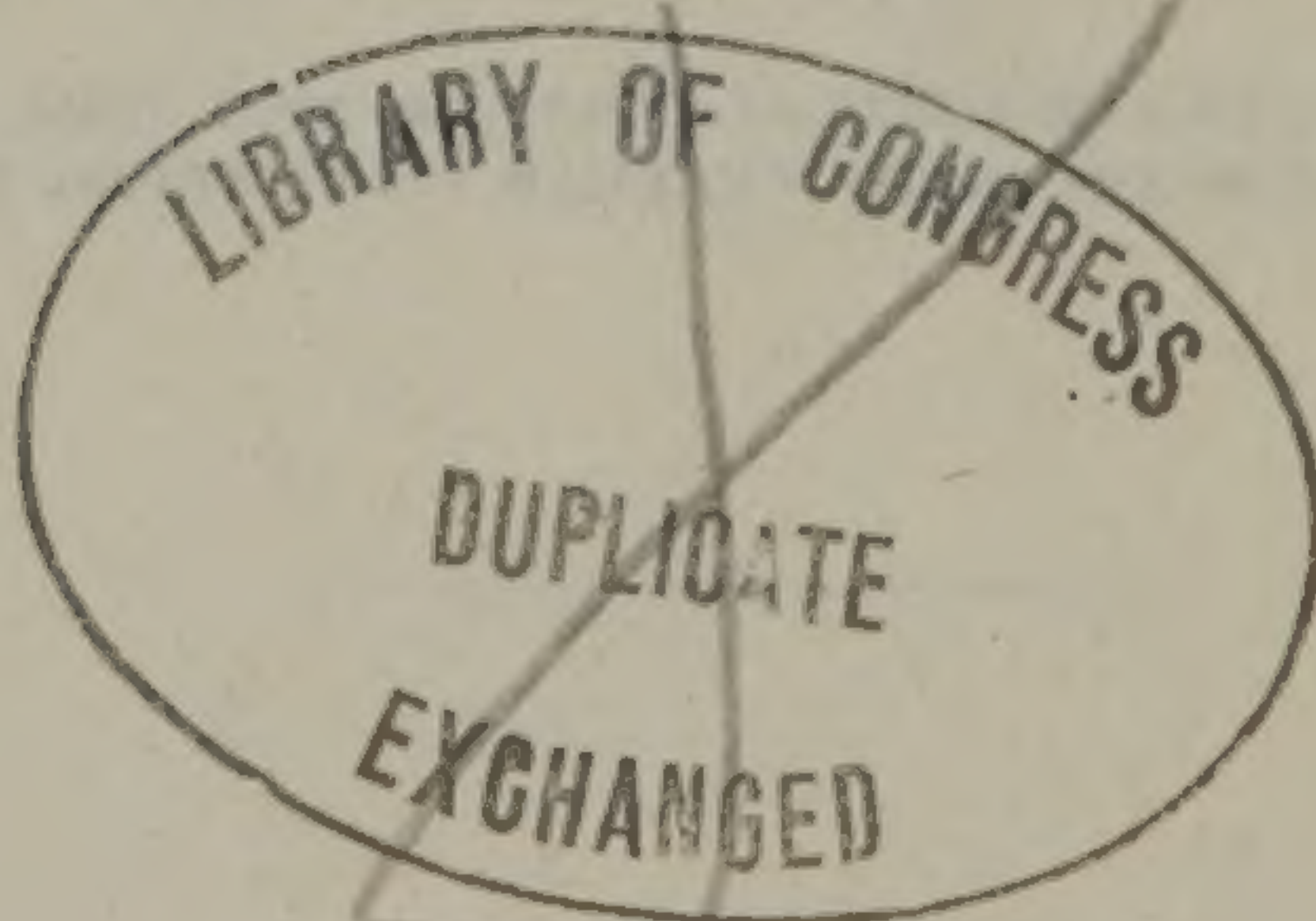
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PREFACE.

In writing a work on the Diseases of Women for general use I do so in the knowledge that a great deficiency exists in our literature upon this very important subject.

I commenced this work merely to supply my own wants of information on this subject, but on an examination of its merits thought it worthy of a general perusal.

American practitioners have written so little on this subject of Woman's Diseases, that we have been obliged almost in every case to look to other works on the subject, such as General Practice and works on Obstetrics.

Should it aid the inquiring mind or awaken the attention of those who have not hitherto thought upon this subject, and lead us to a more careful practice in alleviating the sufferings of woman, and help her to fulfil the all-important and indispensable functions of life for which she was undoubtedly intended by her Creator, my object will be accomplished.

This department of science has made great advance-

ment in Europe, and even in this country, in the last few years; yet those cases have only been recorded in our special medical journals, and, consequently, out of the reach of the masses of the people by whom they should be thoroughly understood.

It therefore appears to me that a book that would present this matter in a clear and at the same time simple form, could scarcely fail to do good to all, for we all know that there are women that do suffer nearly death three or four days in every month for want of some simple, plain guide on this subject.

I know that this work will fall into the hands of some persons well-informed in the science of Physiology, for we find in nearly every family a student of this science; I have therefore taken pains to use no words that would be objectionable to the most refined, and have written three chapters on *Reproduction*, which I consider one of the most important branches of the subject under consideration, and one that is, perhaps, the least of all understood by the masses of the people by whom it should be generally known and fully comprehended, as will readily appear from a careful investigation of the work.

In the preparation of the work I have taken an independent course, guided by a practical experience of many years successful practice after a thorough medical graduation at the best institutions the country affords, consequently I shall be limited or prescribed by no clique, faction or *pathy*, but shall endeavor to treat the subject in a plain, practical, common sense

manner, readily understood by those for whose benefit it is especially designed, and have recommended only such treatment as I have practically demonstrated, aided by the best lights that the science of the present day affords.

THE AUTHOR.

[COPY OF DIPLOMA.]

The Regents, Council and Professors of the Long Island College Hospital,

TO EACH AND ALL WHO MAY READ THIS DIPLOMA, SEND GREETING:

Be it known to you that JOHN KEMPER assiduously pursued Medical and Philosophical studies in this College, and after an examination has shown himself worthy of receiving the highest medical honors, wherefore it has pleased us, under the authorities granted by the laws of the State of New York, to admit him to the degree of Doctor of Medicine, and to grant and confer the most ample power of teaching and practicing Medicine everywhere, and all other rights and immunities which here or elsewhere are wont to be conferred upon those who are exalted to the high position of Doctor. In further testimony whereof we have carefully appended to this Diploma the seal of our College, and our signatures, given forth from the halls of the College, in the city of Brooklyn, on the 28th day of June, in the 91st year of our Independence, and in the year of our Lord 1867.

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CHAPTER I.

MODE OF SEXUAL GENERATION.

The generating functions are performed by two sets of organs capable of uniting with each other so as to produce a new individual, and are called male and female organs of generation. The female organs produce the *germ* or *egg* in a globular body which is capable of producing the body of the new animal or plant, the male the stimulating power; these are the characters of the two organs taken together. In different organized beings these organs are very much modified.

In plants that blossom and flower, which are the generative organs in this department of science, they have, first, the female organ, in the shape of a long stem, situated in the central part of the flower and on the highest point; around these organs are situated a number of *stamens*, containing within their expanded ends the male organs of generation, called *anthers*; these parts are wholly surrounded by fine, delicate leaves or blossoms termed the *corolla*, with a number of green leaves outside of them called the *calix*.

When the anther stamens ripen they give off a fine powder called the *pollen*; this pollen is caught up by this high point of the female organs and finds its way down to the germ; the germ thus stimulated, the new plant is organized and its growth started. The old organs dry up and fall off as useless, while the new germ increases in size rapidly and changes in texture until it ripens and brings forth good seed or fruit, and will, if placed in good ground, grow and bring forth fruit in just the same way and manner as the parent.

Now we have a great many plants where the male and female organs of generation are situated on the same flower, as in the case of the lily, violet, etc. We have other plants where the organs of generation, both male and female, are situated on different plants, as the willow and hemp.

In the animal kingdom of all kinds the female organs are called *ovaries*, and in them we find the egg or new germ.

In the tape worm each joint contains the organs of the male and female, connecting with each other by a central canal. In snails and some of the other lower animals we find both male and female organs of generation in the same animal. but the organs do not ripen at the same time; the female organ ripens first and performs its function, then the male organ; so the same animal is not male and female at the same time, but first female and then male.

But in all higher animals the two sets of organs are

situated in separate individuals, making two sexes in the species. We have, besides the two sets of organs, others which are secondary or accessory, which assist in the process of generation, such as the *womb*, *mammary glands* etc., of the female.

The female has, as a matter of course, the protection and care of the young after birth, and the male the care for food and protection.

There is a great difference in the structure of the body, which affects the whole structure of the two sexes, and even in a moral and mental point of view; in some cases this difference is so great that they would never be taken to belong to the same species unless they were found together. To prove this, and demonstrate this point clearly, we will point to the cock and hen, lion and lioness, buck and doe.

In speaking of this subject more fully we shall take up the female organs of generation, together with their product and function.

CHAPTER II.

ON THE FEMALE ORGANS OF GENERATION.

The globular body called the egg, which is produced by every animal, varies considerably in size according to the species. In the human it is very small, not more than the one-hundred-and-twentieth of an inch in diameter, while in the frog it is about one-twelfth of an inch in diameter; its composition is as follows: it has an external membranous sac called a *vitelline membrane*, and in this membrane the substance of the egg, called *vitellus*, is contained.

In birds and reptiles the vitelline membrane is very thin and cordy, or rough like *fibrin*, while in the higher animals, such as man, it is much thicker and smooth and at the same time very elastic.

The egg may be flattened out under the microscope with a needle without being broken, and when the pressure is removed it will resume its original shape. Within the vitelline membrane is the vitellus, composed of both oily and fibrine matter, just in the same manner as the common hen's egg, without the exter-

nal white; in the central part of this vitellus or yellow we find a clear transparent spot called the *germinal spot* or *nucleus* of the egg. We now come to speak of this vitellus, and find it to be the most important part of the egg, for it is out of this vitellus or yellow that the body of the new individual, bird or animal is to be formed, while the vitelline membrane or sac is only intended to protect the yellow during the stages of incubation.

This egg that we have been describing is simply an external sac containing a yellow for the developement of the young body. Such an egg we find in the human subject. In reptiles, aquatic birds, and most fishes and invertebrate animals, nearly all of those eggs where they are deposited in the water to be hatched out, as well as those that are retained in the body of the female to be developed, can absorb water from the floating current and food from the mucous membrane for their nutrition. But in reptiles, lizards and birds, where the egg is to be expelled from the body of the female at an early period to be incubated or hatched on land, we find no external source of nutrition for the young animal to subsist on; in all of these cases the yolk is very large and bulky and the size of the egg very much increased by the addition of an external *white* which is a coat of pure *albumen*; yet this increased size in every part does not change the nature or general character of either sac (vitelline membrane) or yolk (vitellus), but it holds to the same law in this case to develope and bring forth a new an-

imal or bird that it did in the small egg of the frog. Now, with reference to these eggs, we say that they are produced in the body of certain organs called *ovaries*; these organs are composed of a number of departments like honey comb or sacs, and every sac or department contains an egg. Some physiologists teach us that the egg is secreted by the ovaries; we think that it is highly improper to call this egg a secretion, but we think that the egg is produced in the ovaries just in the same manner that the tooth is produced in the jaw-bone, and forms one of the constituents of the female body. Then we find, according to these conclusions, that the ovaries are the most important part of the organs of generation of all females, because they produce the egg.

Now we have other organs which are accessory or secondary to the ovaries, the most important of which are the two *oviducts*, symmetrical in form, which are intended to receive the egg at the ovaries, and convey it to the womb. The mucous membrane along the pathway of these two ducts is calculated to furnish the egg with a coating and thicken its walls, and also to provide substance for its nutrition and completion. In the frog we find the most simple form of these ducts, consisting of two tubes, one on the right and one on the left, slightly zig-zag in their appearance or course, and curving over themselves to encircle the ovaries, joining together near the outlet or lower part of the intestinal canal.

If we examine a frog in the latter part of summer

we will find the ovaries presenting the appearance of small clusters of small, clear, round eggs. But early in the spring, when the first warm weather makes its appearance, we find the ovaries very much enlarged, perhaps to three or four times their natural size, and filled to their uttermost with transparent eggs; but in a short time incubation or hatching begins, when they change to a dark color.

In all the lower animals, at the approach of the active season with them, the eggs, which have heretofore been in an inactive state, begin to increase in size and change their structure, the yellow or vitellus, which has been transparent, begins to granulate and increase in size and grow brown. But, in the human subject, the difference appears to be only in its color; that is, the egg will grow very fast and remain perfectly transparent. This enlargement gradually distends the little sac that contains it in the ovaries until it is fully ripened, when a rupture of the sac takes place and the egg is discharged into the oviduct to be conveyed to the womb or external world. In this way crop after crop is ripened, rupture takes place and the egg is discharged from the body or ovaries, and at the same time new crops of eggs are ripening for the next generative period, and, by dissection, we may trace the young egg back three or four generative periods to the same as we find in the hen. In the fish, reptiles and birds, this change occurs but once in a year, in some of the higher animals it may take place

once a year, once a month or bi-monthly, but in every case it makes its appearance regularly.

In the frog, when the egg leaves the ovaries in early spring, it consists of only the vitellus or yolk, but in its passage down the oviduct or canal it gathers albumen, or a thick, tenacious envelope or coating, and is finally discharged; this albumen absorbs the water and gets very thick, and by its absorption liquefaction takes place and serves as nutrition for the new animal during the stages of incubation.

In the common fowl the ovaries consist, as in the frog, of a large number of sacs or pouches containing the egg in different stages of developement; as it approaches maturity it enlarges very much until a rupture takes place in the duct; as the egg is discharged from the ovaries of the fowl it is globular in form and only consists of the vitellus or yolk, and vitelline membrane, and a clear spot called the germinal spot. The egg now commences its course downwards through the common duct, and it is in this duct the eggs of all fowls gather the white or albumen. This substance, called the white of the egg, is a semi-solid, and is found in greater abundance in front of the advance egg than behind it, and in this manner forms a point or cone to the advance egg, and is always in this way when coated with albumen or white, and pointed with the point downwards in all cases.

In the third division of the oviduct the egg is nearly completed; it is here that it receives the thick membrane under the shell, and, finally, the egg is received

into the fourth division; here the mucous membrane exudes the earthy salts out of which the shell is formed. Soon after the expulsion of the egg from the fourth chamber it undergoes a process of evaporation of its watery parts, which space is rapidly filled by air (this air that has filled this chamber is between the two coats of the fibrous membrane, and in all cases at the round end of the egg). After the expulsion of the egg the albumen liquefies, and the yolk being lighter, owing to the oil it contains, rises to the top with the germinal spot uppermost; this part presents itself immediately on breaking the egg; this position is very favorable for warmth and atmospheric air for the development of the egg or chicken.

In the human subject the female organs of generation present the following different parts: the *ovaries* consist of small sacs in a dense substance well supplied with bloodvessels, and around the whole mass a thick membrane called *round* or *broad ligament*; this is the substance that forms the oviduct to convey the egg from the ovaries to the womb in the same manner we have noticed above in the bird or common hen. These ducts then extend from the ovaries to the womb, but in the human subject the womb is so much developed at the expense of the duct that the latter hardly appears to have an existence; but on opening the womb we find that it has a triangular shape running out to intersect the mouths of the ducts. The cavity of the body of the womb terminates below in a constricted part called the *os* or *neck*. The womb has a thin, del-

icate, rosy mucous membrane and closely adheres to the subjacent muscular coat; it consists of small glands similar to those found in the stomach. The glands of the body of the womb have small openings on the mucous membrane; the secretion of these glands serves to produce nourishment for the new individual during the early stages of womb development. The accessory female organs of generation, consisting of duct and tubes in the lower animals serve to hasten the egg to the external world.

CHAPTER III.

MENSTRUATION.

By the term *menstruation* we mean the periodical return of the courses in the human female, which is of sufficient importance to justify a full description. During the early stages of the child-life the sexular organs, as we have found in a former chapter, are in a state of inactivity. No excitement exists about the ovaries, no external phenomena show themselves; no egg is discharged, nothing to show that the stages of menstruation or courses are about to take place. In a short time, however, a very great and marked change takes place in nearly the whole organization of the body; the limbs are more round, the breasts are better developed, and, in fact, the whole body undergoes an entire change, showing that the state of maturity is fast approaching. At the same time a discharge of blood takes place from the generative passages, or from the mucous membrane of the womb, and at the same time she undergoes some considerable disturbance in her general health, and now the female is

known to have arrived at the period of *puberty*, or a general completion of the ovaries or organs of generation. The bloody discharge above referred to returns once every month, or once every twenty-eight days, and after this returns regularly it is then known by the name of *menses* or *courses*, and continues from the age of fourteen to forty-five, and during this time the female is capable of child-bearing, and liable to become pregnant at any time : but after arriving at that age, the menses become irregular, and in a short time cease altogether; this indicates that the organs have run their course, and the woman is no longer fertile, and, of course, pregnancy cannot take place.

It is well known that derangements of the menstrual discharge interfere with pregnancy, so that a woman who is regular in her menses is more apt to become pregnant than one who is irregular. When pregnancy takes place the menses or courses are suspended, and usually remain so during the period of nursing, and afterward recommence and continue in the same manner as before.

The menstrual discharge consists of an excessive mucons discharge from the mucous membrane of the womb mingled with blood. When the menses are about to arrive, or the expected period comes around, the woman is affected with a certain amount of lassitude and some pain in the region of the hips and womb ; these symptoms are very slight in some, and again in others much more troublesome. An unusual discharge takes place from all the organs of genera-

tion at this time, being at first of a mucous character, but by the second or third day it is nearly pure blood. The pains that are so common in the first stages now begin to subside, the flow begins to grow scanty and the color also changes from a pure blood to a brown, until it finally ceases altogether and the female is restored again to health.

The menstrual period in the human is very much like the same period in the lower animals; their general resemblance does not require to be demonstrated. As in the human female, they are absent before the age of puberty, and also, like her, their periods during the young-bearing period occur at regular times and are governed by the same laws as to pregnancy. In the human female the bloody discharge is more abundant than in the lower animals, but it is a phenomenon differing only in degree from that which shows itself in them.

That the period of menstruation is the period of ovulation we have the most complete evidence, as has been found in a sufficient number of cases of birds and lower animals that have been demonstrated after death during the period of the courses.

The sac containing the egg is ruptured at this time and is the cause of all the changes that take place in all the organs of generation, both direct and accessory. We do not know at what precise period of the menses the sac containing the egg is ruptured and the egg discharged. It is the opinion of some that it takes place very early in the period, and of others that it

occurs about the middle, and yet others in the last stages of the menses. I am inclined to think that it is ruptured very early in all healthy and natural cases; still, we may say the exact time cannot be given, it may be very early or it may be very late, because the menses are not regular themselves, sometimes coming two or three days earlier and at other times as much later, and I think we may say for all practical purposes the same rule will hold good in the rupture of the sac and the discharge of the egg during the menstrual flow.

We found that when the egg was discharged from the ovaries in frogs and birds, it found its way to the womb or outlet by the central tubes or ducts called oviducts. Now, in the case of the human female we find the same thing takes place after the sac has been ruptured in the ovaries and the egg, being discharged, finds its way to the womb through the canals or ducts called *Fallopian tubes*.

In the lower animals the egg is very much larger than in the human female, and does not run the same risk of being lost. In the human the egg being very small is liable to be lost, were there not some other provision made for its safety and protection. We find the tubes that convey the egg to the womb to be lined with a *fine-pointed lining*, with the points towards the womb, so that when the egg is received within those points it is driven on to the womb by the natural action and motions of the muscular coats of the tubes; yet it is subject to accidental causes that

disturb this natural course, and it may be stopped along the way between the ovaries and the womb, and in this obstructed condition of the egg pregnancy may take place before the egg arrives at the womb. The egg may become impregnated at any time after it leaves the ovaries, but as a general rule pregnancy takes place before the egg arrives at the womb; and should it not take place, the egg is carried away with the womb secretion or the flow of the menses. Then as a matter of course, pregnancy is more likely to take place about the time of the menstrual flow than at any other time—either just before or soon after the courses. We cannot give the exact time during which impregnation may take place, sometimes sooner, sometimes later. It is a fact that in some exceptional cases pregnancy does take place when there has been no menstrual flow, that being only an external sign of the more important changes taking place within the organs of generation.

The menses are very abundant in some, while scanty in others, depending very much on the circulation of the blood in the womb and other organs of generation, and, though the flow of blood is an index to the aptitude of this organ for impregnation, yet it is not always necessarily so, as all depends upon the expulsion of a healthy egg, whether menses follow or not. Then we draw our conclusion that the blood that is discharged during the menstrual flow is furnished by the mucous membrane of the womb. This has been demonstrated by examination of the womb

after death of cases that have died in this condition.

We find the mucous or internal coat of the womb filled with a thick, bloody discharge, and the blood has been seen to exude or flow out of the internal coat during falling of the womb, when the organ was turned wrong side out, called in scientific language *procedentia*, and takes place to very considerable extent, just as the blood is exuded from the lungs in consumption or spitting of blood; the blood, then, comes from the whole extent of the mucous membrane of the womb.

CHAPTER IV.

SOME GENERAL REMARKS ON DISEASES OF THE WOMB AND
OTHER SYMPTOMS.

The most important organ in the generative system is the womb, and, of all the organs in the body, it is the most likely to become the seat of disease; in the human female it is the cause of more trouble and diseases than all the other organs together, and as a general thing it is as easy to give a plausible explanation of these symptoms as it is to explain the symptoms and effects that this organ produces on the system in general or other organs of the body, while it is laboring under different diseases.

It is sometimes very difficult to understand the influence that this organ exerts on the frame in general and other organs the most remote—without any connection whatever,—and notwithstanding our knowledge in anatomy and physiology we are compelled to look to those symptoms and thereby make up our conclusions from them.

We will now proceed to examine some of the phe-

nomena or symptoms produced on the remote organs during diseases of the womb, before passing to the diseases of the organ itself. We find this organ, whether pregnant or not, to present or represent a hollow muscle filled with a great many furrows and nerves and bloodvessels, having its internal part lined with a delicate, fine, soft, pinkish mucous membrane, and retaining its position between the bladder and rectum by means of special ligaments or bands for that purpose. Its superior portion extends up to the small intestine, or the upper portion of the womb extends to the intestine, while its lower portion extends down into the vagina.

This anatomy of the different organs of generation is the cause of so many changes taking place in the sensibility or mobility of the organs. We have in those parts, both directly and indirectly, a great many nerves connecting with the ligaments of the womb, and connecting this organ with the ovaries and the tubes from the womb to the ovaries and ligaments. This may during disease of the organ produce a crowd of secondary symptoms, but as a general thing the womb is without sensation. In support of this statement we adduce the fact that neither diseases of this organ, contusion or cutting the womb produce any degree of pain, but by some changed condition of the mucous membrane it becomes enlarged or thickened, the nerves supplying those parts become very irritable and very painful, and this attains its highest

degree when the cavity is filled by something and the body is made tense.

Again, when the womb is the seat of this thickening, the pain is limited to the region over the organ, still, we find it extending to the small of the back and downwards; the patient will then complain of weight, heat, and a burning sensation all over those parts. Now, if we find the tension is caused by too great an expansion of the walls of the womb, the pain is of short duration, lasting but a very little time,—not more than thirty or forty minutes. Women who have borne children say that these pains are just like the pains during confinement, and, in fact, we find them produced by the very same causes; the cavity has become filled with something, and now the muscles of the parts are trying to throw it off, and it is this excessive action that produces the pains. Now these pains present one peculiar quality worth observing, and that is this: they are not increased by pressure made on the womb through the uterine walls. These pains are called *uterine colic*, or *colic of the womb*.

Now it is very evident from what we have learned about these that they are very formal; that is, they furnish us the key to disease that is making its appearance in the body of the womb of an inflammatory character; yet we should be very cautious about classing all pains as of an inflammatory nature; We find pains of an expulsatory character that are very much like them,

The inner surface of the womb is lined with a delicate mucous membrane, as we found above, and this internal coat is full of little glands, estimated at more than ten thousand. We can see that a very slight cause, stimulating all these little glands at one time, could increase the secretion very much indeed ; so much so that it would produce a continual mucous flow, called *leucorrhœa*, or *whites* ; yet this is, as a general thing, always before and after the courses.

After what we have said on this point, I think it may be taken for granted that this flow that takes place from the neck of the womb is, when in a normal or natural condition, as a general thing, confined to the menstrual period, or just before or after the courses.

The mucous membrane of the neck of the womb has another peculiarity, which appears to be this ; this flow taking place from its mucous membrane appears to act from a congestion of the body of the womb, and not from any congestion of its own parts. With reference to the general character of this flow from the neck of the womb, we think that it is, beyond all question, alkaline in its nature ; yet we must be careful not to associate this secretion with those that take place in the organ or those below that point, for they are always acid in their character.

On examining the discharge of the neck of the womb it is found to be of a thick, homogeneous mucus, holding in its solution round, globular bodies. These globules are found in part intact, and in part

undergoing decomposition ; and in the latter we find them very much enlarged by absorption of the watery material with which they come in contact.

It remains for us to say, while on this part of our subject, that we have never found in the secretion or discharges from the neck of the womb any of those *trichomonar* or small growths like small animals or insects.

We come now to speak of the discharges that take place from the internal coats of the womb. Thus far we have been speaking of the discharges from the neck of the womb. Now, aside from the mucus discharges from the internal parts of the womb, we have a *bloody flow*, which, however, in a normal or natural condition occurs periodically ; this is the *menstrual* blood, and when the parts or organs are not diseased it takes place without any pain. The blood that flows from these parts is liquid and does not coagulate at all during the courses. The discharges are very slight at first, but in a short time the quantity increases very fast, and in the course of two or three days it has reached its greatest amount.

The exact amount of blood discharged at each time cannot be given ; it may be six or seven ounces for the whole period of the menses.

In temperate climates the courses make their appearance between the thirteenth and sixteenth years, and with most women return every twenty-eight days after the arrest of the menstrual flow ; yet any slight variation should not be taken as a symptom or sign of

disease. Their duration, as a general thing, is four or five days, yet it is not uncommon to find them extend much longer, or, on the other hand, not lasting more than two days, and this among persons enjoying the best of health.

The average time during which a woman has her courses is from twenty-five to thirty years; they come on at about thirteen and disappear at about forty-five, unless something interferes to stop them.

The changed condition that the courses or menses bring with them is felt all over the system, more particularly in the organs in the region of the womb, and is accompanied by head-ache, slight enlargement of the breasts, vomiting, fear etc. However, those symptoms do not last very long, and should not cause any alarm of trouble or disease; it all follows from an elevated condition of the temperature of the body.

The phenomena of menstruation which we have been describing may, under the influence of different diseases of the womb, put on the most varied forms and modifications; the quantity of blood that is given under those forms may be without limit, and in those cases we find it coagulate into clots when it comes in contact with the acid secretion of the vagina. On the other hand, it may be diminished to a few drops, and that is the only sign of menstruation.

Diseases may also be the cause of too tardy or premature appearance of the flow in the first place, or a too frequent return of it after it has made its appearance, or too long duration, or the flow of blood may

be too great,—all caused by latent diseases or those that have made their appearance.

Now we can see that those symptoms are of the highest importance (from this exposition), looking towards diseases of some kind in the womb. We find another set of symptoms making their appearance as the result of those diseases, and they are the effects they produce on the rectum (those, of course, are all functional); all diseases of the womb characterized by an afflux of blood or congestion in the womb produce the same effects on the rectum and the lower parts of the intestinal canal, and as a matter of course, a greater or less diarrhœa. On the other hand, if the flow from the womb be very scant it will produce just the opposite result, and an obstinate constipation follows, of the very worst kind. The bladder may be affected in different ways, and we may find decomposition of the urine take place by a long retention, and a great many bad symptoms of the bladder follow.

We found above that the womb was directly connected with the ovaries by two canals; we can readily see why disease of the womb would affect the ovaries, but we find that, as a general thing, all of those symptoms are secondary, and do not of themselves cause much trouble, yet they all point back to the womb and the neck of the womb as their starting-point. It is not uncommon to find disease of the womb accompanied by disease of the ovaries, and we find it so in nearly all cases of inflammation. This is the reason why women that are suffering from those diseases

have, nearly the whole time, sharp and fixed pain in the small of the back. These symptoms are, many of them, a true index to those diseases, namely, diseases of the ovaries.

The vagina may be affected by the diseased womb; then, as soon as the augmentation of this organ takes place, the veins and bloodvessels of the vagina are affected and this chronic congestion gives rise to those changes in the secretion of the mucous membrane of this organ that so frequently accompany disease of the womb. The displacement of the womb may give rise to displacement of the vagina and its walls, and it cannot be denied that prolapsis of this organ often precedes prolapsis of the womb. What we mean by *prolapsis*, is a turning of the organ wrong side out, and, at the same time, a falling.

Finally, we may say that certain diseases of the womb accompanied by corrosive discharges may bring on inflammation and ulceration of the vagina, which takes place in almost all bad cases, particularly in those of a cancerous nature, and now we find the sympathetic symptoms making their appearance in nearly every distant organ.

It is true that the faculty possessed by disease of the womb of producing these effects on distant organs, has not been very well understood until lately, and we find it in the connection in the nervous system; yet it appears very mysterious; a detailed account of all the action by reflex action and other ways will hardly explain.

If we now direct our attention in the first place to the organs of digestion, we find the secondary affection of the stomach accompanying nearly all diseases of the uterus, more or less, in a short time after they are manifest, and especially when the walls of the womb are actively engaged we find pains of some kind or other, called *cardialgia*, and obstinate vomiting following those pains or following the excessive action of the walls of the womb. We should not judge from this that the stomach is at fault, but only a symptom of disease in some other parts, and this vomiting is only sympathetic action of that organ.

Now this difficulty is not at all times limited to the stomach, but may be transferred to the small intestines, causing tenderness in those parts, and even swelling and enlargement. From this, it is almost needless to say, these troubles of the digestive organs caused by some changed condition of the nervous system, would be transferred to the blood and the process of assimilation, rendering that fluid dull and poor. Thus we find women who have been laboring for a long time under disease of the womb present a dull, pale, worn-out look and appearance, and, in fact, in an exhausted condition. And of all the diseases that women are liable to, these uterine or womb diseases of all kinds are the hardest to endure and at the same time the most prostrating, working on the very vitals of the patient.

CHAPTER V.

REMARKS ON TREATMENT OF DISEASES OF THE WOMB.

Within the last few years this department of medicine has made great advancement, and we have to some extent gone to another extreme with local treatment, or treatment applied directly to the parts themselves, and have to some degree neglected the grand or constitutional plan of treatment. This omission, however, is not sufficient to drive us from the first, or local plan of treatment, for all know who have had any experience in the treatment of those diseases, that they can do more and better work with local applications, however simple, than they can do with medicine given through the stomach.

But these remarks are general, since we will after a while take up individual disease of those organs, and treat them separately. The principal plan formerly adopted in treating those inflammations and congestions of the womb was calomel and general bleeding, or the application of leeches to the thighs or

parts themselves; but in these days we direct our attention directly to the parts affected, local application of instruments, ointments, caustics and other medicines. This local treatment can here be done the best by scarification of the neck and internal parts of the womb. It is not the amount of blood taken (as the old writers thought) that produces the good results by any means, but it is the establishing in those ulcerated parts of a healthy action by inflammation, and causing those ulcers of long duration to heal and get well.

Caustics are an important medicine in the treatment of diseases of the womb, provided, however, they are used with judgment, and for a special purpose. Caustics are applied to the womb, its neck or internal portion, and to the internal parts of the vagina, according to the disease we are treating.

For the neck of the womb the caustics mostly used are the nitrate of silver or even the solid stick, and they can be applied with a sponge with a proper holder, either to the womb or vagina. The neck is sometimes so tender that, with the utmost care, the caustic will produce bleeding, which is very injurious to the surface of those parts. In such cases it is best to use liquid caustic, such as a solution of nitrate of silver. This method of using caustic is designed for cases of superficial ulceration of the lips or neck of the womb, and should be used at all times with great care.

The solid stick of nitrate of silver is to be used in

common cases to burn off the recent growths. The pains that are produced by these operations are nothing or next to nothing, and you should not fear them.

The womb and its neck are almost painless as far as an operation is concerned; you may cut or lacerate it with very little pain. However, the very idea of such an operation horrifies the patient, and it is well to be cautious and know beforehand that the treatment is perfectly safe and harmless and at the same time the only treatment that will effect a permanent cure.

We pass now to the application of various ointments to the womb in a diseased condition. In treating disease of the womb it will become necessary to use different kinds of ointment, and they are to be used in this manner; you can use the common speculum and then apply the ointment with a sponge on the end of something that will carry it to the parts.

On the neck of the womb you may use a common probang straightened out, or the ointment may be applied without the speculum with the same probang, by taking a little pains. Be sure to carry the ointment to the neck of the womb.

Another good way is to use the medicine, say belladonna, or any other medicine, with lard or wax made into small balls, which may be carried to the neck of the womb with the index finger. The lard and wax should be of a consistency to be formed into small balls, the weight being not more than three or

four drachms. and not too hard nor on the other hand too soft, for they must be retained there for some time.

The medicines that are applied to these parts in the shape of ointments are various. They are, as a general thing, narcotics, such as opium or belladonna, or astringents such as alum, sugar of lead, tannin and other medicines of a like nature; we very often use something to produce absorption, and for this purpose we use iodine and iodide of potassium. It must, however, be remembered that when we wish prompt action it will not do to depend on those ointments, for their absorption from the walls of those parts, as a general thing, is very slow and uncertain, and we have also observed that this plan is not applicable in those cases where we wish to overcome very violent pain; this action is entirely too slow for those cases.

We come now to speak of vaginal injections, and we find that they play an important part in the treatment of those diseases, and we may say that we cannot speak in too high praise of them, for several reasons. According to the effect that we wish to produce we use different kinds of injections. They may be applied with a common syringe, Davidson's is the best, or some one on the self-injecting plan. The liquid varies also, sometimes pure water or warm water, and at other times medicine is mixed with the water, but I am fully satisfied that warm water, gently and carefully used, is one of the very best solutions that we can use for general purposes; of course, if

we have some special diseases to treat by injection, we must use some special medicine in the water.

The instrument to be used in applying this solution or water is, as we have remarked above, a common self-injecting syringe, yet we may use others; one on the plan of a syphon I think is very good. This apparatus costs but very little and renders the very best service, and, furthermore, the patient can use it without the help of an assistant and without fatigue.

We shall not enumerate in this chapter all the diseases that require those injections, but will speak of them more fully when we come to treat of each disease individually; yet we think it proper to speak of some of them briefly at this time.

As a general rule, the higher the temperature of the water or solution to be injected the greater the flux of blood to the parts of the genital organs, and when those applications have been used very abundantly the parts get very warm and soft and at the same time increase or invite the blood to the surface. This bloody congestion that takes place in all of the organs of those parts is further evinced by an increased menstrual discharge, and all promoted by the warm injection, or the injection of warm water into the vagina. Here, then, is a powerful stimulant to those parts to increase the courses, and we may always look for good results in nearly all cases of suppressed menstruation.

The action of cold water has a contracting influence

or just the reverse of the warm, and its effects are not so general, but more local or to the parts the cold water comes in contact with. When we make an examination immediately after using cold water, we find the walls of the vagina contracted, and they will remain so for some time, and the secretion of the mucous membrane very much diminished; and if we have falling of the womb or of the walls of the vagina these cold injections have the very best effects by contracting the parts and giving strength to the muscular coats; in case of chronic enlargement the cold injections have the happiest effects, by causing absorption of the excessive enlargement or thickened walls, and we find the womb gradually resuming its natural condition after the use of the cold injection.

The force with which the material is injected modifies its action. As a general thing, the congestion excited by warm injection is very much increased when the liquid is thrown in with force and in an uninterrupted current; in the same manner the cold injection may produce results analogous to the warm stream. It is the mechanical irritation that produces the different results, and for this reason we should be very careful with both cold and warm fomentations to the parts for fear that we go too far with them, either in starting or checking the menses. If we use the warm water too long we are in great danger of subjecting our patient to dangerous flooding, and the same rule will hold good with the cold.

CHAPTER VI.

FLEXIONS OR BENDING OF THE WOMB.

We shall now speak of flexion of the womb; by this we mean the falling forward or backwards of the womb so that the neck forms an angle with the body, and the mouth of the womb either looks backwards or forward. On an inspection of this organ it shows that the top of the womb no longer occupies the superior portion of the organ, but has been flexed on itself and bent in the middle, so that now the superior portion has been thrown down and the middle portion is the highest up in the pelvis.

The part displaced, if seized with the hand, can, as a general thing, be replaced in its natural position without much difficulty, but again, in a few minutes, will resume its flexed position. By looking more closely, and especially by an examination through the organ we can readily see that the womb is not only flexed on itself, but is also very much displaced, and in such a manner that the anteflexion is complicated

with an antroversion, or partial turning of the organ.

When this disease is of long duration we find that the attachment is very great, that is, the attachment of the womb to the near parts with which it is brought into contact.

These adhesions are, as a general thing, the result of inflammatory action of the parts brought together, and become very dense and very variable in their character.

We are informed by some medical writers that flexions are caused by inflammation of the lining membrane of the bowels, called *peritoneum*; we think that such conclusions are very much out of place, and calculated to lead the enquiring mind off from the true causes. We think that inflammation of the lining membrane of those parts is sometimes the cause of these flexions, but the idea that it is the *sole* cause is entirely out of place and unreasonable.

The degree of the flexion of the womb upon itself is very important to know; it may be limited to a slight curve, presenting a very obtuse angle; in the other extreme the womb is completely folded double, and the angle very acute.

We very rarely meet with those extremes of flexion except in women who have never borne children. The cause of this may be that in consequence of numerous pregnancies and labors the upper portion of the vagina loses its rigidity and elasticity; and, in fact, the more the walls of the vagina possess the

power of resisting the better it places the neck of the womb in its normal or natural position. However, we can see from this that when the body of the womb is turned a little forward or backward the acute angle must be very great indeed; and, on the other hand, when the vaginal walls are relaxed and yield easily, the same cause which forces the top of the womb to bend forward will cause the neck, when not firmly fixed, to be borne backwards, and hence the falling forward of the organ will combine with an antroversion or turning of a greater or less extent, and the angle of the flexion will be much more open, and it will be the same in a falling backward of the organ or womb.

Finally, in flexion of the womb the texture of the organ is very much changed; very often we are struck with the appearance of the color, which is of a blood-red, or sometimes of a slate color, and by this we may always judge that a state of chronic inflammation exists in the walls of the womb. In such cases we find the upper part of the organ very much enlarged and its weight very much increased; the vessels are very much dilated and full of blood, the muscles soft and relaxed; the cavity of the womb is also very much enlarged and as a general thing, full of mucus, watery or yellow and bloody. This abnormal secretion of the internal surface is caused by a chronic inflammation or catarrh, and partly from the contact of the front and back parts of the walls of the neck of

the womb preventing the natural escape of the secretion and confining it in the womb.

When the flexions are very marked the mouth of the womb is a little opened and quite soft, and even in women who have never borne children. We think that the phenomenon is owing to the upper part of the womb being very heavy; when it falls backward it renders the parts of the neck and mouth very tense. It is for this reason that the organ is always gaping.

We find that the organs situated in the neighborhood of the flexed womb are always changed;—such as the rectum, bladder, and in fact nearly all the parts in that locality.

As a general thing it is among young adult females that we find flexions the most common, and it is between the ages of thirty and thirty-five that the organs of generation are the most in danger by repeated pregnancies, causing them to become relaxed and to some extent worn-out or fail for want of rest. We know also that flexion has sometimes been found to exist in young girls who have not attained the age of puberty, and, on the other hand, it may be found in old persons; but in those extreme cases they are of very little importance, giving but little trouble.

But we may say that we find the most cases among married women, for it is among this class that the most pregnancies and labors occur. Marriage at an undue time, as a general thing, has a great deal to do in producing these flexions; for a multitude of labors before the organ has attained its proper shape and

form is conducive to all these troubles. Women who in a short time have had a large number of labors are much more likely to suffer from flexion than those who have borne children less often than those who marry young and bring upon themselves this trouble of flexion and falling of the womb.

They are also more liable to premature labor, and premature labor of any kind is very likely to produce flexion and falling, and, in fact, all kinds of diseases of the womb. We should not forget to mention as one of the very first causes of flexion and falling of the womb, the getting up too soon after parturition, when all of the parts are very much relaxed, and throwing all the weight of the bowels, and in fact, of all the organs in those parts, upon the neck of the womb, which will, as a matter of course, drive it out of its place.

The process of parturition or delivery, when it takes place at the proper period or time, is always attended with more or less danger; and, as a general thing, one out of every six or seven cases is attended with either flexion or some other form of version or falling of the womb, and nearly every case where the forceps or instruments are used to assist in delivery of the woman.

We think that a great many of these cases are produced by the continued distention of the walls of the womb resulting from a multitude of pregnancies and deliveries, and in a great many of the recorded cases of flexion and womb displacements the women have

borne twins. This fact deserves the more attention because recorded cases have shown that accidents of every kind which are capable during confinement of delaying the return of the womb to its natural shape and size are often met with in women who subsequently suffered with flexion of this organ.

I would, in this connection, impress upon the mind the great danger of exercise too soon after delivery. As we have spoken of this subject before, we do so again, knowing the great danger attending those cases, in getting up before the tenth day after delivery. Some recorded cases kept in Berlin show that in seventy-five cases of flexion thirty got up before the eighth day.

Finally, in reviewing all the causes of flexion and displacements that we have touched upon, we would say that an undue multitude of pregnancies and deliveries stand in this matter as the first great cause.

We now come to speak of the symptoms of flexion and some of the changes produced on the womb by its displacement. We have, as the result of this flexion violent pain, leucorrhœa or whites, menorrhagia or an increase of the menses, flooding and difficulty in passing the water from the bladder. Now let us look at the causes of those symptoms. In the first place, it is, in a majority of cases, the disturbed menses or courses that give rise to the different symptoms. The courses become very irregular and at the same time painful, and the flow much greater at some times than others. The period of the return is variable

and marked by pain in the region of the womb which has never before been manifest. The pains resemble the pains of labor, with clots of blood; and also bladder troubles and nausea of the stomach, of a sympathetic character.

In this state, if the patient be left to herself, she falls at last into a low, melancholy condition which dispenses with all social company, and is apt to be followed by the worst kind of internal diseases, such as pulmonary consumption. This is the progress made by diseases that are apt to follow flexion or other displacements of the womb—the termination of those cases of flexion.

This class of cases, as we have intimated above, are among the worst that we are brought into contact with, and, to our humiliation, in spite of all we can do, we are persuaded that unless a natural condition is brought about by nature itself all our efforts will be in vain; hence scientific physicians never talk much about curing flexion, and this does not appear astonishing when we remember the cause of this dreadful disease. Preceded and favored by a relaxed condition of all the parts the flexion makes slow and steady advancement, and it is not until it has attained a very considerable degree that the symptoms are made manifest, and the disease is augmented by the different changes that take place. According as the flexion takes place the walls and coats of the womb get larger and softer.

Then we would say by what means can we cause

the natural or normal condition to re-appear? Still we would say in writing on this subject, that the patient is not to be given up, for, by a proper course of treatment she may be very much improved, and we would be chargeable should we refuse to treat and assist in those cases.

It is clear that this condition will, sooner or later, exhaust the patient's strength and impoverish the blood, and soon difficulties in the form of nutrition and of the nervous system make their appearance, and it is from those causes that the patient should have careful and special treatment.

TREATMENT OF FLEXION.

Within the last few years the treatment has gained considerable importance, and recently written works have thrown more light on the subject. Various procedures have been recommended and the manner of treating this malady has been very various.

The first great principle in the treatment of this tremendous disease, as we may say, is to get clear of the softening of the walls of the womb, and in the next place to strengthen the parts and restore the normal or natural condition by mechanical or other direct or indirect remedial means. We may say that the results as far as they have gone are not very favorable to the mechanical plan of treatment, and it is very hard for us to comprehend how it is possible by the introduction of a sound or other instrument

into the womb to cause that organ to overcome its softening or gain its normal position and at the same time strengthen the muscular walls of the organ, a softening always existing at the place of the flexion.

When the disease is not of long standing and is accompanied by pain, tumefaction and a loss of the natural walls, cold hip baths, vaginal injections; and ergot given two or three times per week will be found useful. We should not have recourse to caustics in those cases unless the whites or local discharge gets too great, and then we may use them to a good purpose; and, by their proper use, at the end of three or four weeks we shall succeed in relieving the uterine discharges and the great flooding or leucorrhœa or whites, and if this should not be successful we may with good results have recourse to local blood-letting. Every week or two we may use the knife on the mouth or neck of the womb. This will reduce the engorgements and very much assist in restoring the parts to their normal condition; but at home I cannot too highly recommend hip baths and injections into the vagina of warm water, soda and water or salt and water; but if the flow be too great you should use cold water, and should use it two or three times a day and—I must speak of the subject again before leaving it—we have nothing at our command that will produce so much good as the proper and continued use of these injections into the vagina, either cold or warm, as the case may require, and I would recommend them in all cases at home.

The application of a solution of nitrate of silver to the cavity of the neck should be repeated frequently in cases of softening with pain and flooding. The ulcerated surfaces easily bleed. The nitrate of silver should be used freely, and if the bleeding is too great it will wash away the solution; then we may take a sponge on the end of a probe and apply a very strong solution, holding the sponge against the parts for some time until the bleeding has been overcome.

It remains for us, while speaking of the treatment of these flexions and the diseases they bring, to speak of uterine colic or colic of the womb,—spasmodic pains of this organ—which is nothing but symptoms of those flexions.

Of all the medicines we have at our command I think opium is the most worthy of our confidence in the shape of a liniment.

If there is no bleeding we may use warm hip baths, but opium, belladonna or chloroform are the great remedies in this dreadful disease. As for giving medicine internally, I think we can do but very little; yet symptoms make their appearance that will call our attention, and it will be impossible to overlook them, and for this reason we must use some internal remedies to build up the worn-out blood. In those cases we are called on to use a tonic, such as columbo, gentian, cinchona and the different preparations of iron, the best of which, I think, is the tincture of iron, twenty drops in a tablespoonful of water three times a day after eating.

The iron treatment should be continued for a long time, as it will require ten or twelve days for the system to get under the influence of the medicine. It should, therefore, be continued for three or four weeks, and, in fact, iron is the great treatment in nearly all diseases of the womb, for they are all suffering more or less from prostration, and a worn-out condition of the blood, and the tincture of iron is the best treatment. Let me then recommend its use without fear of any constitutional habits being contracted by its continued use.

Finally, while speaking on the treatment of this disease, let me recommend a bandage around the hips and over the womb, with a pad immediately over the organ, so as to lift up the bowels and remove the pressure from the womb. We have seen the very best results from the use of the bandage. It should be made in the shape of the letter T and placed firmly around the body. It should be made of strong muslin with the pad attached to keep it in place.

CHAPTER VII.

PROLAPSUS OR FALLING OF THE WOMB.

In speaking of this disease I know that it is one that is commonly thought and talked of among those that are troubled with the disease and those that are not, and I propose now to make some general remarks. It is simply a settling down, the womb occupying a much lower position in its uterine cavity than its natural one, and this may continue until the organ has made its appearance into the external world. This condition is called *prolapsus*. A prolapsus existing for a long time is always followed by a change in the womb and the accessory organs connected with it, and, in fact, all the parts that the womb is brought in contact with.

In a case of complete prolapsus of the womb, we find, immediately under the falling portion a bluish-red tumor, more or less reducible, at the inferior part of which we recognize, under the form of a transverse fissure, the gaping orifice of the womb. But if, at the moment of inspection the womb does not pass through

the external parts, the extraordinary space which separates the two lips of the external parts, and the possibility of seeing the tumefied and livid walls, are evidences of displacement which exist during life, and in those cases by making pressure over the womb it is very often pressed out into the external world, and this is nearly always the case when pressure is made immediately over the top of the womb. In those cases it is wonderful to see the extent to which it will take everything along with it. We can ordinarily satisfy ourselves at the same time as to the extraordinary tension of the round ligament, and as a complete prolapsus always gives rise to trouble in the circulation of the womb or its appendages we may also prove the congestion of these parts by the veins being still dilated and gorged with blood, and often from the livid color of some or all the organs of those parts.

The great length to which the ligaments of the womb have stretched may be diminished by endeavoring to restore and replace the disordered organ to its normal or natural place in the cavity of the pelvis. By this word *pelvis* we mean the cavity formed by the two hip bones on each side and the lower portion of the backbone, behind which is the natural place or cavity for the womb, and when it descends out of that place or cavity we say that it is a case of falling of the womb, and the ligaments have undergone such a stretching that in replacing the womb to its normal cavity we can readily crowd it up two or three inches beyond its natural place, and this

condition will not disappear until the organ has been replaced and some time has been allowed for a slight inflammation to take place, and as a result of this inflammation, absorption of the excessive parts and a shortening of the ligaments before the womb can be retained in its original position.

In those cases we are struck with the length and breadth of the womb, and the internal anatomy of the organ is also very much changed. When in a natural condition, the internal mucous membrane is full of small folds called *rugæ*; in those cases of falling these folds have nearly all disappeared.

Often after long duration of this disease there is a true version of the neck of the womb. The mouth at first dilates insensibly and its border forms a circle one inch in diameter, through which the neck is turned in such a manner as to throw the mucous membrane or internal surface on the outside. It is quite easy to reduce this turning of the neck by grasping the lower portion with one hand and keeping the organ in place with the other, and then to make gradual pressure until the organ is turned back to its original position.

In those cases in the organs that have undergone displacements we find the obstructed circulation of the blood extends to them in just the same manner as to the womb.

We wish to speak of some of the symptoms of falling of the womb. This displacement is developed little by little in consequence of an interior depression of this organ, or it may take place all at once, violently.

from either external or internal causes. In the first case the patient complains for a long time, sometimes for months and even years, of a painful feeling about the small of the back and hips, extending all through the pelvis, and of a continual and sometimes of a lancinating character in the lower part of the abdomen, as if a large mass was pressing them down in those parts of the pelvic region, and about to be pressed out into the external world.

They are apt to be followed by pain and other trouble in the bladder, and very often with more or less disturbance of the bowels; costiveness of the very worst character is apt to follow all of these cases, and as the period of the menses approaches the womb gets very heavy and insupportable to the patient.

In a majority of cases sympathetic symptoms make their appearance in the direction of the digestive organs; the food being insufficient, disorders in the functions of the nervous system make their appearance. This state of things will exist for an indefinite time, until all at once a tumor makes its appearance out of the genital organs into the external world. It is very painful and varies in size; at first it is not very large, but in a short time increases very fast and gets very dense in character. At this time the neck of the womb has passed out also, and is now with its mouth turned up instead of down, and if recourse is not had to proper treatment, or if the patient is forced to labor or work at anything requiring any considerable exercise, the uterus or womb and vagina

progress outwards, and when the walls have enlarged they may form a tumor as large as the fist. This when growing presents a doughy appearance, and it is only by a strong pressure that we can tell that the womb is in the center of the tumor. Similar symptoms render it extremely probable that the top of the womb and also the bladder undergo a displacement backward and downward in such a manner that the bladder is found in the pocket formed in front of the external parts. In such cases as this it is found to be impossible for the patient to pass her water without assistance.

When the prolapsus of the organ is very great it often drags the rectum down with it, and this gives rise to a dilation of the parts. Sometimes a prolapsus of the rectum accompanies that of the womb, especially in old age.

If the prolapsed womb remain long outside the body it is subjected to influences from the atmosphere and from the friction of the thighs and clothing, and in a special manner to the urine that flows off the external parts. Hence we frequently find over the whole surface of the tumor, and particularly upon the inverted surface of the neck, ulceration and inflammation which, if the proper treatment is not given, may very soon lead to something very dangerous, even to mortification and sloughing of all the parts exposed.

In nearly all cases of prolapsus of the womb the mucous membrane of this organ is very sensitive and painful,—very much more so than it is in a natural

condition, and the least exciting cause will subject the patient to the most excruciating pain.

As a general thing, prolapsus is the cause of various changes in the menses; it may be defective or even amenorrhœa or absent, while, on the other hand, if the mucous membrane be very soft or relaxed the menstrual flow may be very abundant and more frequent than natural; again, it is not infrequent in the hastened case for the menses to be changed into flooding of a very dangerous character.

Then we can readily understand that in consequence of the altered condition of those parts and the chronic catarrh that exists in the mucous membrane of the womb and accessory parts a woman affected in that way will not readily conceive.

Sometimes the prolapsus takes place suddenly, as in lifting a heavy burden, or in a violent fit of coughing, etc. The sudden displacement of the womb causes intense pain about the region of the small of the back and, in fact, extending all over the genital parts.

The falling of the womb is not necessarily a fatal disease, yet as a general thing it is incurable and very painful to the patient, and if proper treatment is not given it is constantly increasing in size and at last undermines her health.

We propose now to speak of the causes of falling of the womb and find them to be the lengthening of the ligaments and other parts calculated to keep this organ in its place; and also other unnatural changes which those organs undergo during pregnancy.

The lengthening of the ligaments and the dilation of the walls of the vagina which commence during pregnancy are such that it is almost impossible for them to resume their natural condition during confinement, and when the uterus or womb has contracted it does not find the same contraction in the ligaments and walls of the vagina that there was in a natural condition. If any cause pushes the womb down this will push the yielding walls of the vagina and it descends towards the external parts.

It is not uncommon to find such a prolapsus after a single labor, but, as a matter of course, it is much oftener to be found after many and repeated labors, more especially when they occur at intervals comparatively short, and all these dangers are increased when the woman undertakes to perform manual labor when all of the parts are more tender than when in an unimpregnated condition, and also by lacing tightly and thus crowding the bowels down on top of the heavy womb.

We may conclude from what has been said that the predisposing causes are many, producing falling of the womb little by little, yet we find other secondary causes such as blows on the abdomen, falls, fits of coughing, laughter, lifting or carrying heavy loads such as tubs of water and heavy kitchen utensils, while in a relaxed condition; and I may say that this last cause is more fruitful of trouble than all the rest together, and so long as a woman will continue such

labor when in that condition we have but little hope of her recovery.

This disease is of such a marked character that there would seem to be but little danger of its being confounded with any other, yet such mistakes do frequently take place. A mistake may occur if the walls of the vagina are large and down, or if the neck is very much enlarged and at the same time very low, producing an external tumor, it may be taken for prolapsus. Now, in order to distinguish prolapsus of the womb from version of the same organ, it is necessary to remember that in prolapsus the mouth of the womb is always at the inferior or lower portion of the tumor and looks down, while in version the mouth of the womb is at the upper portion of the tumor and looks upward. Again, we may be misled by a large polypus or tumor that sometimes makes its appearance and growth from the mucous membrane of the womb, and by its own weight finds its way through the external parts and may be taken for prolapsus.

TREATMENT OF PROLAPSUS.

It would take a large volume to describe all the treatment that has been prescribed for this disease by different authors. We shall, therefore, only attempt to state a few of the most important plans of treatment and what appears to us the most successful.

In the first place, then, common sense would teach us that the object in view would be to replace the

prolapsed womb in its natural position and to retain it there. This reduction is generally not very hard to accomplish unless we have a tumor above pressing down on the womb. When the body of the womb is not enlarged it does sometimes happen that the reduction takes place spontaneously or without assistance. This, however, is when the prolapsus is not very extensive.

To reduce this prolapsus artificially we separate the external parts with the left hand and with the other grasp the lower parts of the tumor and replace it gently and gradually in its proper position, and this can be done as well at home by the nurse as a physician can do it; all he can do is to take hold and return the womb to its natural place, and you can do the same if you take hold and use proper care and continue until it has been reduced. Place the patient on her back with the hips slightly elevated, and let her so remain during the operation.

If the tumor has gained considerable size and is very tender and painful, we must use something to reduce the inflammation and pain. For this purpose warm fomentations, such as warm water, may be used and continued for some time, and will, as a general thing, answer every purpose. When ulcerations exist on the tumor they must be treated if they interfere with reducing the womb. This can be done with caustics; nitrate of silver, twenty grains to the ounce of water, two or three times a day, applied with a camels' hair brush; we will find in nearly every case

that the use of this solution of lunar caustic is attended with the very best results.

The womb, as soon as reduced, must be retained in its proper place or it will soon find its way back outside the body, and for this purpose a great many pads or plugs called pessaries have been used without doing very much good. As a general thing, all pessaries are objectionable on account of their weight and the friction they produce.

In cases where the prolapsus has not been too great and the body of the womb has not gained too much size and the external parts have not been relaxed too much, the womb may be put back and a cotton cloth or sponge dipped in oil carried up through the external parts and placed firmly and gently against the womb, and if the sponge is not inclined to stay in support of the womb a bandage may be placed around the parts in the shape of a T; the two horizontal parts may be placed around the waist and the inferior one passed between the limbs; in this way the womb may be retained in its natural place. To assist, this sponge may, after seven or eight days, be dipped in a solution of alun or white oak bark ooze. In connection with this treatment we should remember the general treatment, such as tonics. The alun should be kept clean and warm, and iron and tonic medicines given.

CHAPTER VIII.

ANTEVERSION OF THE WOMB.

By the word *anteversion* we mean the falling of the womb forward to such a degree that we can observe that the organ has been displaced downwards and forward. Now in a natural condition the summit of the womb is slightly forward, the back part looking upward and the forepart downward. Its up-and-down axis is not perpendicular, so we see from this that the womb in a natural condition is thrown a little forward.

This condition becomes a disease when it is by active predisposing causes very much thrown forward. When this is the case it gives rise to the most varied disorders in the function of the womb and the neighboring organs.

We find this disease, as a general thing, among young women who have high hip bones and the cavity of the pelvis much thrown forward; for in this case, when the back part of the womb is looking up, it supports all the weight of the bowels resting on it. Again, this condition will be much increased if

the womb has gained any considerable weight within its own walls.

Then it is a very common thing for this displacement to result from pressure of other organs on and around the womb.

Again, we may say that anteversion or a falling forward is only a symptom of depression or prolapsus of the womb; more particularly when the parts have been very much relaxed and a prolapsus of the vagina and bladder occupies a very low position, and an accumulation of urine takes place in the bladder, pushing backwards the neck of the womb and thus bringing on an anteversion; and this is all strengthened by strong bands adhering to the parts to bind them down.

We do not have much pain in those cases unless the patient is pregnant or the pain results from some mortal change or an affection of the bladder or some of the neighboring organs.

The symptoms of anteversion of the womb are limited to the tension about the rectum and bladder and a frequent necessity of urinating, and usually an obstinate constipation of the bowels. All these symptoms increase as the period of menstruation approaches.

It is almost impossible to tell anything about this disease without an examination of the parts. We then find the mouth and neck of the womb very much thrown backward and in proportion to the amount that the top has gone forward, the mouth of the organ

looking back. We also find the top of the womb thrown forward and lapping over the body and low down in the vagina, and at the same time the anterior part of the vagina is very much dilated and giving away to the weight of the top of the womb.

We may say that this is a hard disease to cure, yet it is in our power to assist a great deal by way of palliating forms of treatment. If the womb has been displaced by pregnancy we may expect that much may be done by treatment and returning it to its natural position ; yet I would say that these forms of displacement, as a general thing, are the cause of sterility, in consequence of the unnatural location of the mouth and orifice of the womb.

A great many mechanical means have been invented to hold the womb up to its normal or natural position, but they only do good as long as worn, bringing about only a momentary cure. Those instruments are objectionable because they bring about very severe pains, and are calculated to excite inflammation of the womb or peritonitis.

In treating this disease we should in all cases look at the causes which produce it; and we find in nearly all cases that it is produced by pressure from above crowding down on the womb, and its attachments and ligaments give way and the organ is forced down into its new position. Then if this be the direct cause of the trouble we are taught that a bandage or girdle that would take off the pressure could scarcely fail to do good. I would recommend

a girdle around the waist, letting the forepart come down in front so as to lift up the bowels and at the same time bear backward; by this means you may do a great deal of good not only to the anteversion but also to the base of the bladder and rectum.

CHAPTER IX.

RETROVERSION OR FALLING BACKWARDS OF THE WOMB.

As we were saying in the last chapter, it must be remembered that in anteversion and retroversion the axis of the womb is always straight, and not bent up on itself as we have it in flexion, which we have had under consideration heretofore.

We propose now to speak of *retroversion*, or a falling backwards of the womb, in which the neck and mouth approach the anterior part of the vagina and as low down as the pubes. The retroversion of the womb is a secondary affection except in pregnancy.

This disease is generally caused by adhesions to the top of the womb which are calculated to draw it backward, or some effusion between the womb and the posterior part of the bladder; and sometimes by tumors developing in the body of the uterine walls, or tumors or weight about the ovaries pressing upon the top of the organ.

After what has been said it will be observed that this deviation of the womb is of secondary importance

in comparison to the maladies that produce it by pressure upon the organ from some distant part.

As the symptoms of retroversion are the same as in anteversion we will dispense with a detailed description of them at this time.

In this displacement the patient complains of painful pressure in the small of the back or sacral region, of painful menstruation and difficulty in passing the bowels, and finally the trouble is followed by sterility.

Now, as to the result of this disease the reader is referred to what we have said in anteversion, and the treatment is also nearly the same. The first and great object is to replace the womb in its natural position and to keep it there, and to this end we should employ a spring pad or bandage, or anything that will bring about this result. Constitutional or local treatment that will unload the local congestion of the parts stands next in order after the womb has been replaced, and to this end we may by local blood-letting do a great deal of good to the parts themselves or to the neck of the womb. It may be done with a small knife on the end of a long probe, and, indeed, I think this the best plan of treatment in all cases depending on congestion.

CHAPTER X.

CHRONIC INFLAMMATION OF THE MUCOUS MEMBRANE OF
THE WOMB, OR CHRONIC CATARRH.

There is often an opportunity to study the anatomical character of this disease, owing to its frequency. We will not speak of the chronic catarrh that accompanies other diseases of the womb, considering only those in which it constitutes a separate and independent disease.

We will, in the first place, consider the changed condition of the mucous membrane in such cases. If we examine the cavity of the womb that is suffering from chronic catarrh we find the mucous membrane very much thickened and changed in color; in the first place it changes from a pale yellow to a slate grey. The cavity is very much enlarged, both in its longitudinal and transverse diameters. In a great many cases of long duration the mucous membrane has lost its inner coat and a change of epithelium takes place. We find in the womb of those cases a large lot of creamy or purulent mucus, to such an

extent that it has filled the entire cavity. This mucus, if it be examined just before menstruation, will be found to carry globular or organized bodies, and also blood corpuscles or blood cells in great abundance.

Now if we come to speak of the mucous membrane of the neck of the womb we find quite a difference between the two. Its color is, as a general thing, pale, and its surface more elevated in the shape of tumors in the neck of the womb; we have the difference in the secretion that it is white, transparent, and fills the cavity of the neck entirely, resembling in its general appearance the white of an egg, or pure albumen.

This altered condition of the mucous membrane of the womb that we have been describing extends down to the vagina, with excoriation and ulceration of the parts; more particularly is the ulceration confined to the mucous membrane of the neck.

This chronic catarrh that we have been speaking of generally extends to the neighboring organs, such as the bladder and the neck of the bladder, the vagina and ovaries, with general enlargement of the parts and threatening enlargement of all the parts.

In catarrh of the womb the most important symptom is the flow from the genital organs of a white, glairy mucus; this kind and character of mucus always indicates inflammation or ulceration of the neck; but if the secretion is purulent or creamy it will teach us that the discharge comes from the mucous membrane of the womb. And yet we may have

leucorrhœa or whites coming from the vagina, but as a rule, leucorrhœa or whites always indicates ulceration of the neck of the womb. We have in some cases the symptoms of acute inflammation preceding leucorrhœa, but as a general thing the disease is developed little by little until all of the symptoms are manifest and they become painful to the patient. When the disease lasts for a long time and the mucus secretion is very abundant and in consequence of some obstruction becomes shut up in the body of the womb, the patient will complain of pains shooting in every direction from the womb, and as the period of menstruation approaches they get more and more intense. Then it is that the secondary symptoms make their appearance in distant neighboring organs, such as pain in the stomach, with vomiting and a general disturbance in the process of digestion and assimilation. Those secondary symptoms are continued upon the bowels; constipation of an obstinate character being among the worst symptoms.

All of these symptoms indicate trouble of the worst kind, and if left to themselves will at last sink the patient into a general state of anæmic hysteria and general loss of strength. Those symptoms are followed by a change in the menstrual flow, which becomes irregular, being too scanty at times and at others too profuse and at the same time very painful. In those cases if we have a large amount of mucus accumulated in the body of the womb, we can very often by

the presence of palpitation above the pubes recognize the enlarged womb.

The vagina in those cases, on an examination, presents a very high color, and sometimes even a livid red, and more particularly if the disease be of long standing. In the older cases and in those that have borne many children, the mouth of the womb is very uneven and tumefied; the anterior part of the mouth of the womb is very much the longest. From the mouth of the womb in those cases we can see proceeding this white or pearly grey mucus. This is what is called leucorrhœa, or whites, and proceeds from the mouth and originates in the neck of the womb, and by the side of this we have the purulent discharge flowing at the same time. With regard to the result of those discharges, we may say that they may continue for years without endangering the patient's life. This disease, as a general thing, is misunderstood by the patient herself in the first stages, when the flow is not very great, or the odor not very bad, or not corrosive.

Those symptoms, all taken together, make the patient think she is getting well; but after the disease has continued for some time and become connected with distant organs by sympathetic action, and attained a degree insupportable, the patient seeks treatment, and not until then.

In the early stages, when the disease might yield to a judicious plan of treatment, it is almost certain to be neglected, partly because parents and husbands

pay so little attention to them and treat them with perfect indifference, as though matters of trifling importance, or nothing more than hysterics—while the poor woman knowing these facts would rather suffer death than make her condition known, which is the principal reason why this class of diseases is so much neglected in its early stages, while in the reach of medical treatment, until, unfortunately for the patient, the time for a radical cure has passed, before she has any attention whatever. After this leucorrhœa or white of egg discharge has become very abundant it is almost impossible to effect a permanent cure, and we would say, from all the facts we have, that those long standing diseases become very dangerous.

We will speak now of the history of chronic catarrh of the mucous membrane of the womb. This disease is as a general thing the result of acute inflammation of the organ. The process of parturition and the puerperal state add very much to producing this disease. It sometimes happens that the lochia, or discharge after labor will pass into some unnatural secretion from the walls of the womb, and thus give rise to this disease; and this will often happen when the patient has not proper care and attention. Getting up too soon, or too much exercise after getting up, is very fruitful towards producing this disease. In cases of polypi or tumors from the mucous membrane, or cancerous infiltration, chronic catarrh is scarcely ever absent. It is also observed in consequence of diseases of the blood, or affection of dis-

tant organs by sympathetic action, and producing congestion of all the organs of the pelvis. We find this disease as the result of heart, lung and liver diseases; also voluntary trouble. The habits of life, poor clothing or food, wet or damp houses, and neglecting washing and bathing the body, often produce this disease.

TREATMENT.

We have in this disease a great many plans of treatment—about as many as we have authors who have written on the subject—but I will give only such as can be used at home, and will do the most good in the shortest space of time. We have two plans of treatment—one an internal or constitutional plan, and the other a local plan of treatment. Now I think a union of those two will be the most profitable, and according to circumstances, either one of those plans.

If the constitution of the patient is reasonably good, and the disease has not been of too long duration and is confined to the mucous membrane, we should use some local depletion; this may be carried on to the mucous membrane of the vagina with a small knife on the end of a probe. This should be continued two or three times a week; and in a short time we may carry on local scarification up into the mouth and neck of the womb, and in fact I think that in those cases we can do more with this little knife on the internal mucous membrane of the neck of the womb than all the treatment we have at our com-

mand, put together; yet judgment and great care should be exercised in using the knife. In the outdoor department of the Medical College at Brooklyn, New York, nearly all cases of chronic catarrh of the womb are treated in this way, by scarifying the internal parts of the mouth and neck of the womb, with the very best results. Some authors recommend leeches applied to the parts, but such treatment is out of the question in this part of the country. I think that the amount of blood taken does not cut any figure in those cases, or does any good. It is perfect nonsense to talk about a few drops of blood, taken either locally or generally, curing a catarrh of the womb, or leucorrhœa; but in scarifying those ulcerated parts you will establish a healthy action, and those ulcerated surfaces will heal and get well, resume their normal mucous covering, and produce healthy action of the parts.

With reference to a vaginal injection, I must say that they are very effective and powerful for good, either cold or warm, but we had better use them warm first, and if not objectionable they may gradually be used colder, and we may add an astringent, such as white oak bark, perchloride of iron; or we may use hip baths in those cases with the very best results, and continue them every day.

Now in all cases where the cavity of the neck is the seat of the disease—and we can very easily tell by the character of the discharge, it being like the white of an egg—we can produce the best results from the

use of nitrate of silver. This may be used with a small sponge made fast to the end of a long probe and dipped in a solution of nitrate of silver, twenty or thirty grains to the ounce of water, and it may be used as strong as forty or even fifty grains to the ounce of water. Pure water should always be used. This caustic should be used once in every five or six days. We should have no fears in the use of this powerful medicine because of its strength, for it is the all-important medicine in those cases of chronic ulceration of the mucous membrane of the neck of the womb.

When the inflammation has extended up into the internal surface of the womb and also to the body and substance of the organ, some authors recommend an injection of nitrate of silver up into the cavity of the womb, to wash the internal surface entirely with the medicine, but I am inclined to think that a plan of treatment of that kind would be very heroic and calculated to do more harm than good, by exciting inflammation in some of the neighboring organs, as it sometimes does with the peritoneum or lining membrane of the bowels. I would therefore say that when other treatment will do, do not use injections into the cavity, and I believe I will say that they *never* should be used, for they seldom ever do good, but are fruitful of harm, and this harm is of a dangerous character because it is extended to the lining membrane of the bowels, called peritoneum.

Then, from all these facts, I would recommend

that the treatment should be confined to the mouth and neck of the womb. If the disease has not already advanced too far, we may do a great deal of good with something mild, continued for a long time—say six or eight weeks—such as local injections of warm water into the vagina, or salt and water, or sugar of lead and water, or tannic acid and warm water. All will do good if continued for a long time; but if ulceration and granulation have made their appearance, this mild plan of treatment hardly reaches the case, and we must resort to a strong solution of nitrate of silver. Hygienic rules must form the basis of all treatment in those cases. Without proper care, with clean, good diet, and proper exercise, all our treatment in those cases will be in vain.

CHAPTER XI.

ON POLYPI OF THE MUCOUS MEMBRANE OF THE WOMB, OR
SMALL TUMORS FROM THIS MEMBRANE.

It is a common thing for large tumors to make their appearance from the body of the womb—that is, internally. Those tumors are sometimes developed from the surface and at other times from the body of the organ or its walls, and do not, during the whole course of their developement, evince any tendency to detach themselves or to project into the cavity of the womb. At other times they are from the beginning more or less free in the cavity, and they gain considerable size, but as their treatment is purely surgical, I do not propose to notice them at this time, and this chapter shall be confined to treating of a small tumor making its appearance from the mucous membrane, not larger than a pea or the end of the finger—yet they may be a little larger. Those tumors are an enlargement or thickening of the mucous membrane, growing out in the shape of a tumor and starting from the papillæ of that membrane. Those little tumors

do not have any connection with the sub-cellular tissue, that is, the tissue below the mucous membrane; but have their attachments perfectly superficial. Each one of those little tumors have in their central part a cavity full of secretion, and this cavity is formed by the glands of the mucous membrane. The vessels are found in a kind of network on the outside of the tumor, and furnish blood and nutrition to the little polyp, or tumor.

We have in all of those cases a congestion of the mucous membrane, and it is in proportion to this congestion that we have the tumors enlarge and their cavities filled with a liquid secretion. Those polypi are of two or three kinds, according to the glands or papillæ that they start from. Some are elongated or club shaped at the outer extremity, and are consistent and most compact; others, again, are thinner and full of bloodvessels with large cavities full of secretion. Those little polypi that we have been speaking of are generally found in the cavity of the neck of the womb, and not in the upper part, or summit. Here again we meet that common disease of the womb that we spoke of in the last chapter—namely, chronic catarrh of the womb; for we find in all of those cases of uterine polypi that they have been preceded by chronic catarrh of the womb for some time—even for months.

Those polypi, or tumors, may undergo many modifications or changes in their character when much inflamed, such as ulceration, or even mortification. We find where those tumors are very long and small

at their attachments, or uterine attachments, that they may become detached by reason of their own weight and movements, or twisted off from the surface of the womb. Now of course tumors of that kind and size would be calculated to have their influence on the womb, and present some strange symptoms; and those changed actions will be in proportion to the size of the tumor; and we find also that the locality of the tumor has a great deal to do with the symptoms. If the tumor is situated in the body of the organ the neck will not be changed by dilation, but will remain perfectly normal; but if, on the other hand, we find the tumor in the cavity of the body and it is of considerable size, it is then that the neck would remain in a normal condition and all the bad symptoms we would look to come from the body of the womb; we would find the womb very much enlarged, and in some cases where the tumor is very large they will bring on expulsive pains, resembling very much labor pains; and in some cases the tumor has been thrown off by such pains and labor.

To distinguish this disease from other diseases of the womb, we have some trouble when the tumor is very small and situated near the summit of the organ and out of our reach, but when it has made its appearance at the mouth of the womb we may with the exploring finger readily distinguish the character of the tumor or disease; but we find most of these little tumors situated in the side of the neck of the womb, and it juts out at the mouth—so in this form we can very

easily distinguish its nature and character. The insertion of those little tumors is important, for by this we can distinguish the kind that have their origin from the mucous membrane from those larger kinds that are developed and grow in the walls and body of the organ; and then, again, those large tumors that are developed in the walls of the womb are scarcely ever formed in the neck or about the mouth.

Where a polyp makes its appearance at the mouth of the womb it is easily recognized by its color, that of the mouth being very pale, while the tumor is quite red. If we take a long probe and pass it in at the mouth of the womb and around the tumor, it will most always discover the insertion.

It is quite easy to distinguish uterine polypi from any other tumor of the womb, if we pay attention to the signs and symptoms. First—in the mucous polypi we have a long slender tumor, clubshaped at its outer extremity, with a small attachment to the surface, and can be readily twisted off from the mucous membrane with a pair of forceps, and resembles very much a leech with its mouth attached to the mucous membrane of the womb; while in the other form of tumors they make their appearance in the walls or body of the womb, and are round and more solid in their character to the finger. When the tumor is situated very high up in the cavity of the womb, it is more troublesome, but we must remember that those small mucous polypi are as a general thing situated in the cavity of the neck.

TREATMENT OF POLYPI.

There is, according to the symptoms, one first or general rule to be adopted in the treatment of this disease, and that is to remove the tumor when it can be done, and we may say that it is the only plan of treatment that will stop the periodical pains. Some recommend us to use the caustic—and in doing so we should use the solid stick—but I think that kind of treatment will do no particular good; besides it will make the pains in a great many cases worse, and at the same time not remove the cause.

If the attachments to the mucous membrane be small we should get hold of the body of the tumor and twist it off from the sides of the womb. This can be done by introducing two fingers gently into the vagina with a pair of strong forceps. with which the tumor is to be seized and twisted off from its attachments to the mucous membrane of the neck or body of the womb. Sometimes when the tumor is very soft it is crushed with the forceps. In those cases it is best to take away all that can be removed with the forceps and then apply the solid nitrate of silver to the point or attachment, and, by so doing, we may effect a perfect cure.

We think that the tumor should be removed, although its removal may not be so simple as the above description would seem to indicate. If the attachments are very large, or high up in the womb, then our task is more difficult, and requires great care.

We find, then, that we cannot twist such a tumor from its hold, and we should bring to our assistance some kind of instruments, and we think the best instrument is a pair of scissors. We draw the tumor down as low as possible with the fingers, or with a hook, and cautiously carry the scissors near the surface and clip the attachments. Or, again, we may use the same treatment on those tumors that we use on tumors of the rectum, or piles; and we can, with perfect safety tie a ligature around the pedicle and allow the string to cut the tumor off. The ligature should be placed around the pedicle as near the surface of the womb as possible.

CHAPTER XII.

CANCER OF THE WOMB.—GENERAL REMARKS.

By the term *cancer*, we mean a morbid or unnatural formation taking place in any part of the body. The natural, or normal cell of the parts is substituted by the noted cancer cell. The growth in those cases is very rapid; so much so that, in a short time, the natural parts are removed by the new growth.

When a patient is suffering from cancer of the womb, it is the vaginal portion of the womb that is affected first; and the disease gradually extends up the body and walls of the organ. After the disease has extended nearly all over the organ, the softening and ulceration extends from inwards out in such a manner that the circumference, or outer portion of the womb, is in an almost leathery condition, while the internal portions are nearly all swept away by this dreadful disease. And after the disease has extended thus far it is very common for it to extend to other

neighboring organs, such as the rectum, bladder, and, in fact, to all the regions of the pelvis. We may say that the disease will extend to every part of the organs of generation, and even to all the body; for, in a short time, it will become constitutional, and every gland in the body will feel the effects of this pain.

We very often find, as the result of this disease, catarrh and dysentery of the bowels, and also the worst kind of derangement of the stomach and other organs of digestion.

We have a number of different kinds of cancer making their appearance in the body, but the kind that we find in the womb, as a general thing, is the encephalic, or brain-like cancer. This kind is characterized by its abundant discharges and number of vessels, and a remarkable tendency to decomposition, and its ragged surface and ugly appearance.

This form of cancer has a particular tendency to spread to neighboring organs, such as the bladder and rectum, and even penetrating the abdominal walls.

We will now speak of the cause of cancer of the womb, and would say that the cause of this disease is but little known. We find the womb, as a general thing, attacked by this disease at a certain age, but as for the predisposing cause we know but little. The most common time of this disease is about the age of forty or forty-five, or about the change of life. Women that have not borne children are more liable to those diseases, both of the womb and breast, than

those that have ; and then it would appear from all the facts in the case that women that have been confined unnaturally frequently are more liable to this disease than others.

It is impossible to give in all cases the cause, so we say that dark hair and dark complexions are more liable ; then other writers say that fair complexions, with red or light hair, are more prone to the disease. It is some stimulating cause that has its starting point in the cellular substances of the womb, because of the natural action of the organ being set aside.

This disease is much more common in large cities than in the country, and among the poorer classes who neglect their food and houses. Among the most prominent causes are emotions of different kinds. We find this disease to be fearfully great among this class of women.

The first symptoms of this disease, as a general thing, will make their appearance shortly after such pernicious causes as immoderate action of a sexual character, which is a very fruitful cause of this disease, and in a great many cases is the cause of the trouble by exciting some unnatural action or growth in those parts. In some cases leucorrhœa of long standing has been the exciting cause ; changing the menstrual flow, and exciting the disease to action. Inflammation of the womb is set down as one of the first causes, exciting, in the first place, chronic enlargement of the womb, sometimes with, and sometimes without ulceration ; but in a short time other symp-

toms of a cancerous nature will make their appearance. We may say that chronic enlargement of the womb may be in a very short time converted into a disease of a cancerous nature or character.

SYMPTOMS OF CANCER OF THE WOMB.

The symptoms that mostly accompany cancer of the womb are pain in the region of the organ of a lancinating character, bleeding from the parts, and a purulent discharge. These symptoms are found in some other diseases, such as we have been describing, as we find them in advanced flexion, but not in the same marked character.

Cancer of the womb does sometimes exist without producing those exciting symptoms, and it is found in some cases that this disease will run its course in the first stages of the disease without exciting any considerable alarm; but in the last stages of the disease, and also in cases of cancer in old persons, the symptoms are very painful and marked. Now in young women the symptoms are very different from the very start. The first thing that will attract our attention is a change in the menses in different ways. We may have dysmenorrhœa, or painful menstruation, and then the menses will be sometimes longer, and sometimes shorter, with derangement of the digestive organs; the courses do not return at regular periods, but come too soon, and in some cases too late, and the

flow may be too copious at some times, and at others too scant. The constitution, as a general thing, will not give way until the loss of blood, or the abundant secretions from the parts are of a puriform character from the giving way of the nervous system. In some of those cases the courses will return after being absent for many years, and the flow of blood be so great as to endanger the patient's life; and this flow of blood will be in proportion to the age of the patient.

We have in most all of these cases of cancer of the womb a very disagreeable odor proceeding from the secretion of the parts, which is one of the most marked symptoms of cancer of the womb; and lastly, we would say that the cancer pains are the most characteristic of all the symptoms.

How to distinguish this disease from others. We find in the last stages of this disease but very little trouble in making up our conclusions; but in the first stages, when the patient's health is good, and she has not suffered from any pains, or excessive loss of blood, we have some difficulty in coming to a true knowledge of the disease. We would naturally think that in a disease so dangerous as this we should have some signs or symptoms that would not lead us astray, but we find that all cases are not alike. We may have two cases in the early stages of the disease, and find one very different from the other. Now if we take the different swellings, and the hardness and complete absence of sensibility, and the appearance of the dis-

ease on the turn of life, we may say that they are strong characteristic signs of this fearful disease. The termination of this disease is always unfavorable, notwithstanding the many cases that have been recorded by different persons at different times.

The duration of this disease is very variable; it depends in a great measure on the patient's age. If she has passed the change of life before the disease has made its appearance, then it is more likely to continue for some time; but if the disease is developed in young women who are menstruating, the periodical congestion hastens the cancerous infiltration and softening; and on the other hand gives rise to the loss of a great amount of blood, which soon exerts an injurious influence on the whole constitution.

TREATMENT.

As for the treatment but little can be said. The disease is incurable, and it is so thought by all sensible men. Ignorant and superstitious people tell us of Faith Doctors, Indian Doctors, and long-eared doctors of different kinds that have cured it, but that is both ignorant and wicked; and yet, in spite of science and education, we find in every part of the country persons that are always ready to run after such things. If we have the good of our patient at heart, we should tell her in plain language her true condition, and not try to take advantage of a dying woman for the sake of a little money.

Now we have two or three kinds of cancer making this appearance in the body and neck of the womb. In the first place we have scirrhus, or hard cancer, which is not so destructive to the parts as the kind we have been describing, and which yields more readily to treatment than the soft cancer; but unfortunately for our treatment, we never see the disease until it has extended into the body of the womb, and then an operation to remove the disease from the neck would do no good. If the disease is limited to the vaginal portions of the womb, or neck of the womb, it might be possible to remove the neck, or diseased portions and hope for some good. But I must say, in concluding my remarks on this dreadful disease, that it must be remembered that all treatment that we can use is of a palliative nature, and can only be directed against the local symptoms without any hope of curing the disease.

CHAPTER XIII.

ON THE CHANGES OF MENSTRUATION.

We speak in one of our first chapters of the physiology of natural menstruation. We propose now to speak of changed, or disturbed menstruation. In the phenomena of the female organism, we have a series of changes taking place which have for their object the periodical ovulation, or the periodical menses or courses. By the term ovulation, we mean the changes that take place in the ovaries once in every twenty-eight days, and the bringing forth of the little ripened egg which ruptures the sac that contains it in the ovaries, and through the agency of the two central ducts, or canals, find its way into the womb. The exact phenomena of this yet mysterious change are to a very considerable degree closed from our science, because those changes that take place in the ovaries and canals from the ovaries to the womb are unapproachable during life. And when we come to speak of the morbid or diseased action of those organs in connection with the diseased action of the breasts, and at the same

time remember that all the bloodvessels and veins in those parts have undergone similar changes, we find ourselves with our present knowledge of this action almost lost ; or we can say with justice to ourselves, and justice to others, that a great part of those changed and natural phenomena is concealed from our observation.

But before we commence to speak of the diseases that are apt to follow from the obstructed courses, we will speak of some of the anatomical changes that are so apt to follow a function so important as this. We find that a congestion of all the genital organs takes place periodically as well as of the ovaries; that is, the congestion is not only in the ovaries, where the egg is found and brought forth, but extends to all the genital organs of the womb and its appendages, and this is now generally acknowledged by all of our first-class books on physiology and diseases of women. But it must be remembered that the periodical congestion has its starting point in the little sac containing the ripe egg in the body of the ovaries. If the sac containing the egg is superficial, the congestion is not so great ; but if the egg is situated deeper in the body of the ovaries, the congestion will be more extensive. This is verified in a single case. We find that in the same case the woman is not always the same ; for in some months she will be better than in others; she will have more pain and longer, and the flow will be much greater at some times than at others.

After the egg has been discharged from the little

sac that contained it, the walls of the cavity soften and grow thicker; the external layer of this sac contracts and assists in filling the cavity; and we find after healing has begun, that the cavity is full of blood. But the walls of the sac soon glue themselves together, and the liquefied clots of blood are allowed to escape, and the healing process continues until the cavity is only marked by the appearance of a scar in the shape of a star. Those we have remaining and marking every one of those ruptures in the ovaries, small bodies called *corpus luteum*. Then we find from this description, that after very many menstrual periods, and every one leaving one of those yellow bodies to mark their rupture, or the discharge of the egg, that the ovaries would appear very rough and uneven. This roughness is very much marked in old women who have menstruated a great many times, and whose ovaries have undergone absorption, and are reduced very much from their natural size, or whose ovaries are atrophied. But it must be remembered that the womb undergoes congestion, or participates in the menstrual phenomena of which the ovaries are the cause.

In the congestion of this organ its vessels are engorged and full of blood, and at the same time the mucous membrane is very red and congested, and at the same time the glands of the neck and body of the organ have undergone quite a change, and have become very sensitive and tender, and, at the same time, very painful. In those cases the mucous membrane

undergoes a periodical catarrh; after this condition remains in the organ for a short time the bloodvessels of the mucous membrane become very much relaxed, and, as a result of this condition of the mucous membrane, the bloodvessels become ruptured and a bloody discharge takes place from the genital organs. This is the menstruation or monthly courses. Now, we find after this state of things has continued for some time in a natural way, that the mucous membrane of the womb, or the lining to the mucous membrane, called *epithelium*, becomes detached and falls off. But in other portions of the genital organs the changes are limited to softening, congestion, and increased sensitiveness. And while the genital organs are undergoing such marked changes, the breasts take on sympathetic action and become tumefied and begin to swell, and are very painful. It is not uncommon for the nipple to become very red. At such periods we find that changes that the sexular organs undergo provoke in other parts of the body sympathetic action of an abnormal character, which proves to us the powerful influence that the sexular organs have on the whole body.

The nervous system is very much changed during the menstrual period, and this changed condition of the nervous system may be preceded and accompanied by some mental and moral disturbances of a melancholy nature. During the menstrual period the functions of digestion are very varied and changed; sometimes the appetite is very good, and at others

a perfect abhorrence for all kinds of food is felt; and this condition is felt on the bowels, causing diarrhœa, or constipation, and even colic, by the accumulation of different kinds of gases.

CHAPTER XIV.

ON PREMATURE MENSTRUATION.

Phenomena of some kind manifest themselves in the female economy about the age of thirteen or fourteen, either in the discharge of blood or by some other changes in the body and genital parts, that teach us that the state of puberty is about to arrive, and that the organs of generation have been fully developed and the egg ripened. The generative organs have gained their majority, and the manifestation or presence of the courses is direct evidence of that fact. Before the ovaries have had time to properly develop, it is evident that menstruation can not take place, nor have a regular course. We would draw our conclusions from this—that none but women that have arrived at the age of puberty could menstruate; but we find the facts in the case very different—for girls not more than three or four years of age have been known to menstruate regularly, and everything would teach us in those cases that it was the appearance of the natural courses. The breasts would be enlarged and the menstrual discharge would be perfectly

natural; yet we may have local discharges taking place from those parts in girls that have no appearance of the menstrual discharges. This local discharge takes place sometimes in newly born children in consequence of a change in the circulation of the blood about the time of birth, and at other times it is present with older children who are suffering from some skin disease, such as small-pox or measles. These discharges can be distinguished from the menstrual flow by their cause and frequency, and traced to some blood disease, or what is known as blood disease; and then, again, they appear only once or do not appear regularly, as do the courses in women. And all the facts in those cases go to prove that the discharge is produced by some local, and not by any premature development in the girl's generative organs, and can not be considered as the regular courses of the ovaries and womb. The female organism does not always suffer from premature menstruation, for cases have been observed where the hemorrhage from the generative organs was very great, without any bad effects on the woman's general health; and then, again, other facts on the same subject go to prove that the great loss of blood may be followed by anæmia, or prostration, and general debility of the whole system. Those great losses of blood may, by debilitating the system, be followed by the very worst kind of symptoms and diseases, after the general strength has been reduced below the natural condition. It may be followed by fatal disease, such as

consumption, dropsy, or other affections that would be calculated to prostrate and wear out the patient's strength. Then, in a case of changed menstruation, the greatest care should be taken in all cases that we come to proper conclusions at once, as we know that more can be done in the first stages of the disease than can be done after the disease has made permanent and lasting impression on distant organs or brought a change in their own parts, and all the more where we know that after this morbid condition has been established that nearly all efforts to bring about a permanent cure will be in vain ; for I think that in those bad cases of obstructed menstruation of long standing all our efforts to bring about a cure will be powerless.

Exercise in the open air, baths, cold water applications, and proper hygienic regimen should constitute our treatment in those cases, together with good diet and a proper use of tonic medicines, such as whisky, brandy, and the simple tonic barks, colombo, gentian and cinchona ; but I think we can do more good in those cases of changed menstruation of long standing, with extreme debility and prostration of the system, with iron. Take the tincture of iron, twenty drops three times a day, in a tablespoonful of cold water, after meals, and let this treatment be continued for six weeks or two months, not forgetting the hip baths every night at bed time.

CHAPTER XV.

SLOW MENSTRUATION.

Now if we call menstruation premature that occurs before the proper time, it will not be very difficult to say that if the courses appear before the thirteenth year it will be premature menstruation; but the case is different and not quite so simple when we come to speak of tardy menstruation. We may take the fourteenth year as the middle epoch for the menses to make their appearance, and for two or three years after that would be considered a delay; but this delay is so frequent and common that we can hardly call it a disease or a pathological condition. Then we find that it is common for the menses to delay their appearance at the proper time, and it is not proper to call those cases diseases of the genital organs; but if this delay in the courses continue too long, that delay will produce disease.

The cause of tardy menstruation we may say is poor blood and general debility. This disease, as we know, makes its appearance about puberty, and if the

patient has proper treatment for the purpose of building up the general health and improving the blood, rather than special medicine for the changed or absent menstruation, it is not uncommon for the patient to go two or three years without menstruation. We find some young women that do go that length of time without menstruating, after the proper time has arrived ; and yet this does not prove that the phenomena of internal menstruation are completely absent, for in some of those cases we find the patient suffering from dysmenorrhœa, or painful menstruation, or an acute sensation about the mucous membrane of the womb ; and those changes will be periodical, and return at regular times.

All of those facts go to prove in those cases, although they do not present any external signs of menstruation, that the work of nature has made its appearance on the internal organs of generation ; and then, again, it can be proven that pregnancy has taken place in some of those cases when the courses have never made their appearance externally.

Now we may say in this connection that if the egg is properly developed and ripened in the ovaries, and rupture of the sac takes place and the egg is discharged into the oviduct and womb, that pregnancy can and may take place without any external signs of the menses, or courses. Now it is not uncommon for the body to be well developed and the organs of generation retarded and not developed in proportion to the body. We have such girls in every town and

neighborhood, where the size of the body would indicate development of the whole structure, and yet as far as the organs of generation are concerned, are nothing but children. Then we find that it is among this class of cases that we find young women well developed and in robust health, with blooming appearance, remain for some time without the appearance of the menstrual discharge. The cause of such delays must be sought for in the organs of generation themselves, and cases are rare where we cannot find some morbid conditions existing in the organs themselves; and in those cases where there are no marked changes taking place in the organs that would lead us to think that they were at fault, then we must look to the nervous system for defective innervation, as we have found that certain nervous alterations may prevent the congestion of the organs of generation, and thereby prevent the courses. Cases have been recorded where a woman menstruated regularly for years, and after paralysis of the lower extremities they never made their appearance again. Then we may say justly, I think, that a changed condition of the nervous system is one of the most powerful causes of tardy or delayed menstruation. Sometimes we find the cause to be a change in the walls of the womb and the accessory organs, such as the ovaries, and this change may take place by chronic inflammation of those organs. Sometimes the congestion that takes place in the ovaries for the purpose of rupturing the sac and discharging the egg has the opposite effect, and a

plastic exudation takes place between the mucous membrane and the walls of the womb, and an organization of this plasma soon takes place where they will exert a continual pressure on the vessels, in such a manner as to prevent a congestion again taking place; and in this manner the vessels of the mucous membrane prevent a pressure of blood, and we can see from this that a hemorrhage could not take place from the genital organs, or a menstrual discharge could not take place under those circumstances. Then we may say in this connection that chronic enlargement is one of the first causes of tardy or slow menstruation. We may say that the influence of this disease is very variable. Sometimes we see women who have attained the age of twenty-five or thirty years without ever having menstruated, without any particular change in their health; and then again, on the other hand, we find cases—and their number is not very small—who meet with a greater amount of trouble as a result of this condition—namely, a want of the menses at the proper time. And again, we should remember in this connection the increased sensitiveness of the mucous membrane of the genital organs, and what we so often observe in those cases, after it has lasted so long, and is subjected to certain changes; and are due to this, that the menstrual congestion is not sufficient to rupture the capillaries and excite the secretion of the mucous membrane of the womb. And we find that it is in those cases that we find chronic catarrh and leucorrhœa, which ever after the courses

have been established obstinately resist all treatment and medicine. Our experience teaches us that the delay in the courses, either by an abnormal condition of the genital organs or by some change that takes place in the organs of digestion and assimilation, are the consequences of change in the whole nervous system, and so give rise to the whole train of symptoms called hysterical.

In making up our conclusion on this disease we should not fail to remember the cause of this abnormal condition. We would not expect a very favorable conclusion if we knew the disease was depending on some development in the ovaries or other organs of generation. If we find that this disease, after a careful examination of all the symptoms and conditions, is depending on some organic changes in the parts themselves, then we would form an unfavorable opinion. We would have more hope if we found the case simply difficulties of innervation.

CHAPTER XVI.

TREATMENT OF SLOW MENSTRUATION.

In speaking of the treatment of this disease, the causes will guide our choice of medicines, either internally or locally, or whether they be in the form of regimen, or a general plan of constitutional treatment. Our first plan will be in a mild way to excite the menstrual hemorrhage, or local discharge from the genital organs, when its appearance is delayed too long. Now we found, when speaking of the cause of this disease, that it was depending on a want of congestion in the parts, and, in treating this disease, we should keep those causes in view, and use some plan of treatment that would be calculated to bring about that condition ; and I think we can do more with warm water, in the shape of warm hip baths, warm fomentation over the region of the womb and ovaries, than we can with any other simple form of treatment ; but it is not uncommon to find cases that hot water is not sufficient to bring on the local congestion. In those cases we should use some stimu-

lating or irritating medicine, but always in a careful manner, such as the flour of mustard, common salt, or even ashes in the warm water, and this solution should be thrown into the vagina two or three times a day with a womb syringe, or a self-injecting syringe. We will find in those cases where it is possible to use the speculum to scarify the mouth and neck of the womb, it will be followed by the very best of consequences. And again, we may with propriety recommend in those cases of absent or tardy menstruation the use of a solution of nitrate of silver applied to the neck and mouth of the womb with a sponge made fast to the end of a long probe. And again, we may use other stimulating applications to the parts, such as the tincture of iodine or collodion. We should remember while using these and other treatment on those cases, that they are more powerful in their effects just before the menstrual period than they are at any other time.

CHAPTER XVII.

ON THE CESSATION OF THE MENSES PREMATURELY.

We found, when speaking of menstruation, that it made its appearance about the age of thirteen, and disappeared about forty-five. We propose, in this chapter, to notice its disappearance before the natural time, or before the age of forty-five. We will say then that, as a general thing, a woman ceases to menstruate at that age, and that natural condition has been called the change or life. The ripening of the eggs terminates at this time, and pregnancy is impossible. But we find cases very different from this general rule; the courses some times lasting much longer than that, and their cessation occurs at other times very much earlier. But we may say that women arrive at the change of life earlier who began menstruating before the natural time. If a woman begins to menstruate at ten or twelve years of age, she will arrive at the change of life much earlier than a woman who began at fourteen or fifteen.

Another cause of this disease is continual pains and frequent labors occurring at short intervals ; and we find it again in consequence of abundant losses of blood, difficulties in the digestive organs, and different organic diseases that find their way into the system at this particular time, any of which may be the cause of this undue cessation of the courses, and it is not uncommon to find in those cases an undue atrophy of the ovaries, and other accessory organs of generation, as the cause of this undue cessation of the courses ; and then, again, it may be a family complaint, or hereditary predisposition. All the female members of the same family may be sometimes affected in this way.

It was formerly thought by the old writers that the menstrual flow was the evacuation of some injurious substance from the blood, without which a woman could not maintain good health ; and then, from this course of reasoning, premature cessation of the courses was thought to have the most dreadful effects on the general constitution, or on some of the organs of generation. But we find that the menstrual flux is the result of well known changes taking place in the ovaries and other organs of generation. Hence those opinions have been considerably modified, for we now consider the menstrual flow not a disease, or the result of a disease, but the result of natural changes going on in the ovaries, and the discharge from the genital organs is only the sign of that natural condition. We do not deny, however, that a sudden suppression

of the menses will bring on the worst consequences, locally and generally; but we must remember that no harm results from a case of early cessation of the menses when having made their appearance two or three years before their natural time.

Now we find, by exploration of the genital organs, that a great many changes that we find in their structure that were considered or attributed to the cessation of the menses, should not be so attributed to their effect, but to their cause. Now, if we were making up our conclusions on this point, it would be very important to know whether in spite of the cessation of the courses, the ovaries did, or did not, go ahead and produce and ripen the egg; for the courses would only be suppressed when it was impossible for the engorged bloodvessels to discharge their blood. We cannot fail to see that such engorgements of the mucous membrane of the womb, without a discharge, could not fail to do harm; but the most of those dangers will disappear when the cessation of the courses is caused by the absence of congestion in the parts.

In making up our conclusions in reference to the appearance or non-appearance of the courses, or whether they be too fast or too slow, we must remember that the external discharge from the genital organs is the only evidence that we have of their appearance, and I think that it might be possible, and, in fact, we found it so above, that the ovaries might perform their functions, and pregnancy take place,

without any menstrual discharge from the generative passages. Hence when those evidences of menstruation or the action of the ovaries fail, it becomes almost impossible for us to know whether this function is performed regularly. This will teach us, when making up our conclusions, that we should be very careful, for a proper knowledge is very important at this particular time; yet we need be rarely deceived if we do not attach too much importance to the external signs, for we do find cases where the cessation of the menses, or the external evidences of menstruation, have been set aside without any dangerous symptoms making their appearance. Now, in prescribing treatment for those cases, it will be better to use mild and tonic remedies, and give the patient time to gain her general health than to use much strong medicine for the purpose of stimulating the parts to action; and to beware of the useless preparations that have been proposed or recommended for suppressed menstruation, for we find in some of these medicines, if they act at all, they could scarcely fail to do a great deal of harm by exciting congestion in the parts at an improper time, and bringing on the patient unnatural and dangerous symptoms. But if we are satisfied that there is a natural congestion taking place in the mucous membrane of the womb, and it is at the proper period, then stimulating medicines may with care be used to a very good advantage. But when we find that this premature cessation of the menses or courses has been caused by some organic condition about the

change of life of the organs of menstruation, the case is quite different, for all experience teaches us that organic changes of the womb and other organs of generation, that take place about the change of life, make very rapid progress.

I now propose to speak of menstruation when the cessation has been delayed too long, and the courses remain for years after the time comes for them to disappear.

We may often find women of fifty years of age who are menstruating regularly; but after that age we do not often see women have any menstrual hemorrhage from the genital parts periodically. We find in some of those cases, however, when no regular discharge takes place; but this seldom ever comes from the womb by a sanguineous discharge from the vagina. We think that after the age of fifty it is impossible for the ovaries to produce and ripen the egg. We know that some very good writers claim that the menstruation, in a regular way, may take place, and from the egg produced pregnancy take place. We do not wish to say that such a thing could not take place, but we think it is going too far to claim that it actually does take place. We think that in all of those cases that have been recorded, that the action has been stimulated by some local cause, and the discharge has been locally, without any natural menstruation. We find in some of those cases when the menses remained too long, that the womb was very soft and enlarged, and the mucous membrane was con-

gested, and the cavity of the womb contained some blood. Those facts teach us that we should be very careful in making up our conclusions in those cases, and if a bloody discharge takes place from the genital parts, to be sure that it comes from the mucous membrane of the womb in a natural way, or whether it comes as the result of some local cause, such as polypi or chronic catarrh, or some other local disease. We do not consider such a hemorrhage as a menstrual flow, without it occurs at the proper time, and when it comes and goes at regular times, and when the quantity of blood is neither too abundant nor too scanty, and when the bloody discharge is accompanied by a more or less complete series of changes, or phenomena, which characterize the ovarian changes, and when these changes are not brought on by some disease in the organs of generation.

We may say, in speaking of those cases, that, as a general thing, those pathological conditions, when the courses are prolonged two or three years beyond their natural time, do not produce any injurious influences on the general health of the patient; yet we wish to remember that in those cases of prolonged menstruation, flooding of a dangerous character is much more liable to occur than at other times. We know that flooding is more liable to come on at an advanced age than at any other time, and we think that this cause is to be found in the changed condition of the uterine walls and body and vessels, or blood-vessels of those parts. In this changed condition of

the parts in old age, the parts lose the power to resist the pressure made upon them by the blood, and they become relaxed and give way under the pressure and thus forming the rupture of the mucous membrane of the walls of the womb, or the rupture of the bloodvessels supplying the mucous membrane, and an extravasion takes place, or a loss of blood from those parts.

As for the treatment, we should be governed by general principles. We found that this disease was depending on some cause, such as debility. To this end we should employ good diet and tonic medicines, such as the bark of cinchona and tincture of iron, recommended above, with hip baths, either warm or cold.

CHAPTER XVIII.

AMENORRHŒA, OR COMPLETE ABSENCE OF THE MENSES
OR COURSES.

We come now to the most important part of our book, and would ask special attention to the next three or four chapters. We propose also to speak in this chapter of vicarious menstruation, or where the menses are substituted for something else, such as menstrual or blood discharges from some of the other organs of generation. We found in a former chapter that the menstrual discharge was only one of the symptoms of the process of ovulation, and that ovulation, or the production of the egg, might take place at regular periods, and pregnancy take place without the recurrence or returns of the menstrual flow. It is the absence of the menstrual flow from the external organs of generation that we mean by the term amenorrhœa. The old writers on this subject considered amenorrhœa as a special disease, but we consider it a changed condition in the sexular apparatus, and in some cases the blood is at fault. We then consider

amenorrhœa as a symptom only of some changed condition of the parts themselves, and not a special disease, as it was thought to be many years ago. In speaking of the cause of this delayed condition in establishing the courses, we should not forget to mention the morbid state of the blood as one of the first causes, and also the distant organs unconnected with the process of menstruation as one of the unfavorable causes. And we would say that a great many of those cases are suffering from the effect of chlorosis, scrofula, and tubercular consumption. Those all have their effect on the nervous system to produce this disease. If, then, it is a fact that amenorrhœa is only depending on a changed condition of other organs and parts of the body, we should not enlarge very much on the cause of this disease, specially. It is true that a large number of cases belonging to this class have their menses suppressed by cold or other external causes; but we would answer that even in those cases that are suffering from this changed condition in the flow of the menstrual discharge, it is only secondary, for we always find in those cases a changed condition in the womb or its appendages. We find that cold has very injurious effects on a woman who is menstruating where it occasions the suppression of the courses; and then we are apt to find something following the suppression of a dangerous character, such as general or local inflammation of the parts. We have as a result of this suppression, in a great many cases, acute inflammation of the walls of the womb, followed by

engorgements of the parts, producing premature amenorrhœa, or suppressed condition of the menstrual flow. Now we find that the sexular apparatus undergoes certain modifications as the result of lively emotion, which prevents the congestion of the organs of generation, which is essential to the periodical ovulation, or maturation of ovaries. In a great many cases this condition of amenorrhœa or a stop in the menses is found to exist after a general bleeding. We must look for the cause in the blood. This blood has been so much reduced by the bleeding that its watery parts have gained the ascendancy, and now we have a state of general debility existing as the result of this loss of blood or this great drain on the system, and a case of amenorrhœa existing as a result of this worn-out condition. We are informed by some authors that amenorrhœa exists in most cases as the result of improper food, high life, without proper exercise, and a neglect of a proper course of hygienic treatment. We should seek for the cause in such cases in a too great irritation of the nerves of the digestive organs, which occasions in them a considerable flow of blood to the parts and diminishes the congestion in the organs of generation; and in this way it will interrupt very materially the menstrual discharges. Now where this condition of the digestion continues for a long time and makes some lasting impression on the blood, we find that it will in this way bring on amenorrhœa, or suppressed menstruation, as the results of this condition of general debility, or anæmia. Then we find

that a poor condition of the blood or a worn-out state of the activity of the system is one of the first causes of amenorrhœa or suppressed menstruation, and that this disease, whether acute or chronic, is only the result of something that has gone before as a predisposing cause, and by a continued influence on the blood has brought on this disease called amenorrhœa. We will find, however, that the influence of this change in menstruation is not so injurious on the system as we would think for without some considerable thought on the subject, or even as we judge from the writings of some authors; for it was taught by the old writers that menstruation was an excretion of all the impurities of the blood, and when the menses were suppressed from any cause those unhealthy excretions were retained in the blood. Some people are so foolish as to have the same theory about the liver, and in cases of torpor of that organ liver pills in the shape of calomel, or taraxacum, or some other of the so-called anti-bilious medicines, are given to force the liver to throw off this oppressive bilious matter. Such a doctrine is preposterous, and will not stand the investigation of exact science for one moment. We think that the same rule will hold good in the case of suppressed menstruation, for the menstrual blood does not differ in any way from blood from other parts, and its exit from the vessels should not be considered as a purifying process for the whole system, but it comes and goes as a result of a periodical congestion

which has its starting point in the ovaries, and the menstrual flow is the result of the congestion.

If we are satisfied with our conclusion that we have just arrived at, we can see that it is evident that a suppressed menstrual flow could do the patient no harm, except when the periodical congestion of the organs of the pelvis takes place regularly, notwithstanding the amenorrhœa, for the menstrual flow could not take place without the local congestion of the mucous membrane was sufficient to induce the capillaries of the bloodvessels to rupture and pour out their blood.

Now it may appear to some that the dangers of amenorrhœa are much greater than we have made them appear in this chapter; and we think when we remember that they are local and only affecting the sexular apparatus, that we will make up our conclusion accordingly, as we find that the dangers formerly attached were very much exaggerated.

We now propose to speak of vicarious menstruation, or a substitution for the courses or menstrual discharge from other mucous membranes, in the place of the mucous membrane of the womb. We find in those cases of suppressed menses, or courses, that a local discharge takes place from other organs at regular periods, and resembling the character of the menses both in time and quantity of the flow. We must say that we have some of the very best authors who doubt this condition, or who doubt that this condition is a true menstrual flow. We cannot

but think that such a condition does at some times exist, but whether or not it is a true menstrual condition I am not prepared to say; yet I am inclined to think when a hemorrhage or flow of blood takes place from other organs aside from the genital organs that this bloody secretion is depending on some local cause in the parts themselves. This may be brought on by an excessive amount of blood or bloodvessels, called vascularity, and at the same time the walls of the mucous membrane of those organs may be very thin; for we know that periodical ripening of the egg in the ovaries of most women excites to a very great degree the vascular congestion of nearly all the organs in the body, and in a majority of cases we have local as well as general phenomena making their appearance.

Now if at such periodical epochs the circulation of the blood be increased and those organs are full of blood, and the wall of the bloodvessels being unnaturally thin, the energy of the increased circulation will force the blood through the mucous membrane and we will have an external hemorrhage. We will have the very same results follow the copious bleeding during menstruation. If the bleeding be very abundant, so as to cause the local congestion in the womb, we will have no menstrual flow from the parts; but if, on the other hand, the local congestion in those distant organs be high and the bleeding from those organs very scanty, local congestion in the mucous membrane may be sufficient to cause the blood to

break through and produce a menstrual discharge from that membrane or from the womb. We find, then, that a congestion in distant organs when that congestion is sufficient to produce a local discharge from the external parts, is sufficient to produce amenorrhœa, or suppressed menstruation from the mucous membrane of the womb. Those local bloody discharges which take place from distant organs, such as the lungs, stomach, and the mucous membrane of the bowels, are what have been called vicarious menstruation. We should remember, in making up our conclusions on this disease, that this supplementary menstrual discharge takes place from some mucous membrane whose great vascularity predisposes it to this hemorrhage or loss of blood, as in the case that we have cited above—lungs, stomach, and mucous membrane of the intestinal canal. We find, however, that supplementary menstrual hemorrhage has no great importance and no serious results are observed, unless in those cases where the loss of blood is very great, as sometimes occurs in cases of spitting of blood from the lungs, called hæmoptysis; or in spitting of blood from the stomach, called gastorrhagia; or to functional disturbance of some of the important organs. Now we find by close attention to this subject that in a majority of those cases the disease has disappeared in a longer or shorter time, of itself, or by the use of a judicious plan of treatment. This disease does not interfere with conception, but we have ob-

served that after pregnancy has taken place the vicarious menstruation from distant organs disappears.

We wish now to speak of another peculiar change that takes place in those cases, besides a local hemorrhage from distant organs, and that is a local secretion, or a very much increased secretion in the organs of generation, such as the mucous membrane of the vagina and womb, and this is periodically, at the same time as the menses, accompanied by amenorrhœa; but we must remember that a majority of those cases are suffering from a peculiar condition of the blood called chlorosis. We know that in this disease the watery properties of the blood are very much increased, and this unequal distribution through the vascular system is said to be the cause of this excessive secretion in those parts, or is the cause of the disease that we call chlorosis; and in those cases of chlorosis, or general debility, we find suppressed menses or amenorrhœa.

TREATMENT OF AMENORRHŒA.

We found in treating of the symptoms and causes of amenorrhœa that it was the result of general or local diseases affecting the genital parts. Now it is evident that we could not expect any good results from the use of medicine, without treating directly against the primary affection, which we found to be the exciting cause of the disease. Doubtless the treatment directly against the cause of amenorrhœa is sec-

onded by the application of medicine which is calculated to combat this grave symptom.

We will now speak of those medicines called emmenagogues, or medicines that are calculated to stimulate the mucous membrane of the womb to produce the menstrual discharge. They all occasion a flow of blood to the parts, and assist the local congestion. They nearly all have the same effect. This local congestion caused by those medicines unites with the menstrual engorgements of the bloodvessels of the mucous membrane of the womb in such a manner as to rupture the capillaries, and a hemorrhage takes place, or the menstrual flow takes place.

We find that the effect of all those stimulating medicines called emmenagogues have a different action. Some of them have a special or local action, while others have a constitutional or general action. We find, also, that heat has a powerful action on the bloodvessels of the mucous membrane of the uterus or womb, and one of our very best treatments in this disease is warm water, in the shape of warm hip-baths, or applied locally by means of a womb syringe or a self-injecting syringe, and in obstinate or bad cases this application of warm water should be continued for some hours. We say that this is one of the very best plans of treatment, and the water should be thrown up into the vagina with some considerable force. We will find that the power this stream has from the syringe has a great deal to do with the effect that the warm water has on the mucous membrane of

the womb for good. The stimulating powers of this warm water on the womb can be very much increased by the addition of some irritating medicine, such as the flour of mustard, liquor of ammonia, or even warm milk ; and you will do well to retain the liquid in the vagina by means of a sponge.

We find that some writers on amenorrhœa recommend the injection of warm stimulating medicines in a liquid form into the cavity of the womb, but I am of the opinion that such a plan of treatment would be very dangerous, and likely to produce uterine colic and inflammation of the lining membrane of the bowels, called peritoneum. We think, therefore, that we should be very cautious about using such heroic treatment. We may continue our warm injection, with stimulating medicines in the warm water, to the rectum ; and in those cases we may use a solution of aloes or mucilage in the warm water to be injected, with the very best results.

I think that in all those cases of suppressed menses we should use mild treatment and give the patient a fair opportunity to gain her general health and get well. I think that too much dependence is put in strong stimulating medicine, and not enough paid to the causes of the disease. Leave off everything that is calculated to assist the trouble, go to bed at the proper time, bathe the body regularly in warm water, and be constant and regular in your habits.

In cases of chronic congestion of the womb we may obtain the very best result from scarifying the

neck and mouth of the womb with a small knife made fast to a long probe ; but this should be used with great care, for after the use of the warm water we find the engorgements very great, and then a free use of the knife may produce some very dangerous symptoms in the way of flooding. And let me say here—once for all—that we should use great care in treating any or all of those diseases of the womb. There has been too much recklessness manifested in the treatment of those diseases. If we wish to use a local stimulus for the purpose of bringing on the menses, we will find one of the best in the shape of a suction apparatus applied to the nipple. The local congestion that this little irritating machine will produce is sympathetic action, and will be extended to the genital organs. Some use mustard or other irritating application to the breasts in those cases with very good results, but the principle is the same as that of transferred sympathetic action from the breast to the womb. It is possible for us to do a great deal of good with constitutional treatment, having also a local action. We may employ such medicines for this purpose as myrrh, ergot, nitrate of potassi, and iron, making our selection according to the symptoms and condition of the patient's health.

If the patient is suffering from great debility, and the watery properties of the blood are in excess, then we should use some preparation of iron, and I think the tincture is much the best, being in a liquid form ;

and if taken after meals, it will be taken up with the food and assist very much in enriching the worn out blood. Tincture of iodine, continued for a long time, assists the process of digestion, and thereby the composition of the blood, and at the same time, perhaps, has an absorbent effect on certain organic diseases of the womb.

Again, we may say that aloes is one of the very best medicines that we can use in those cases, for the purpose of assisting the local congestion, and thereby bringing on the courses; but this medicine should be used with great care, as its effects on the organs of generation are very great, and it would be well to use it with some other medicines, such as myrrh. But we may say that the use of those medicines alone will never cure a case without the use of local and hygienic means on the part of the patient herself.

We will speak a few words about the treatment of supplementary, or vicarious menstruation, although we can do but very little in the way of treatment; and in fact we are in favor of the opinion that nothing should be done without the general health of the woman demands it. We have some cases where the blood flows from a wound or an ulcer; but when the wound or ulcer is cured the changes in the menstrual flow generally disappear. Now if we take one of these ulcers, or fistulas of long standing, which has been the cause of vicarious menstruation, we will find that it is very hard to dispose of, because of the

periodical congestion of the parts, and then it is very hard to control the menses, or courses, because of the diseased parts having such an influence on them.

CHAPTER XIX.

OF MENORRHAGIA, OR AN ABUNDANT MENSTRUAL DIS-
CHARGE OF BLOOD, OR FLOODING.

Flooding is not exactly proper in speaking of this disease, but we find that in some of those cases the flooding is nearly as great as it is in abortion, or after labor.

We will speak of the causes of this disease, and we find that the change in the blood, which predisposes in general to too abundant local congestion in those parts is one of the first causes; and then some cases are so peculiarly or morbidly constituted in their organism as to determine an excessive menstrual congestion of all the organs of the pelvis, or organs of generation, at the time of the menses, or courses. It is in those two changed conditions during the course of which there is a great excitement in the circulatory system, co-existing with a changed condition of the blood, which predisposes it to flowing or flooding. And we find also that this condition of the blood is found in other conditions or diseases, such as measles, scarlet

fever, and some other skin diseases, during the existence of which a great local discharge takes place from the genital organs.

Now we find during the course of some long continued diseases or fevers, that as a general thing the courses are suppressed; yet they may be changed the other way, and flooding take place in a very dangerous way, so much so as to exhaust the patient's feeble force, and hasten a fatal termination.

We find in nearly all those cases of a very copious menstrual flow during the progress of these fevers or diseases, that it is depending on some morbid change in the blood; and in those conditions, if local discharges take place from the skin, nose, rectum, or other parts, they are very unfavorable symptoms.

Nearly all chronic diseases of the blood, such as scorbutus, which have been produced by an improper diet, and a want of vegetable, as well as animal food, may be followed by an increase in the menstrual flow. The same thing holds good in all cases of anæmia, or general debility, and even in scorbutic patients, when the thinness of the blood favors the extravasation, or increase of the menstrual discharge, or flow.

We find the cause of menorrhagia, or too abundant menstrual flow, to be depending on the circulation of the blood, or the venous part of the blood, as it is returning to the heart, meets with opposition, as in case of valvular disease of the heart, producing congestion in the parts, or in the walls of the womb. The blood vessels of the mucous membrane of the womb gorged

with blood must then be ruptured and give rise to the menorrhagia, or flooding. And we may have certain local affections producing menorrhagia of the womb, such as inflammation of the organ; yet it is not uncommon for inflammation of the womb to produce suppressed menses; however, we do have cases of acute inflammation followed by the worst kind of menorrhagia, or even flooding, when the acute congestion of the womb often returns, or when from continued difficulties it passes into a chronic congestion, or infiltration of the body or substance of the womb takes place, and sometimes is followed by flexion, prolapsis, tumors, or other abnormal position and condition of its parts. All of those cases are predisposed to rupture of the bloodvessels lining the womb. Thus it plays an important part in producing menorrhagia, or abundant menstrual flow.

We will mention here that those uterine diseases which cause more or less loss of the substance of the the womb are a cause of menorrhagia, or too abundant menstrual flow. Those excessive discharges of blood are apt to follow granular degeneration of the body of the womb, and also cancer and ulcer of the organ; and we find that in cancerous ulcers of the womb this symptom of flooding at times is scarcely ever absent; and we will mention while on this subject, the growth of plastic bodies situated in the walls of the womb, fibrous bodies, fibrous and mucous polypi, all of these produce a local congestion of the organs and are almost always the cause of ruptures in the mucous

membrane, and consequently the cause of the menorrhagia.

We find from what we have learned about this disease that in nearly every case menorrhagia is only a symptom, and cannot be considered as a special morbid condition of itself, and without forgetting its important relation to the entire body, or economy, we should study carefully the primary causes that produce it. And, in fact, this rule will hold good in menorrhagia that we found to be true when speaking of other diseases of the genital organs, that in nearly every case they had been brought on the patient and supported in the system by some exciting cause sufficient to bring about a changed condition in the parts, and those diseases, such as menorrhagia, amenorrhœa, and in fact all of those troubles, were only symptoms of those changed conditions, or the common action of those changed organs or parts.

CHAPTER XX.

DYSMENORRHŒA, OR PAINFUL MENSTRUATION.

By this term we mean a changed condition of the effects produced by menstruation from its natural or normal state to one of an abnormal or painful condition.

Now, we found, while speaking of the physiology of menstruation, that while in a state of perfect health, it was the cause of no notable difficulty, but it may be accompanied at the start, and continued throughout its course, with painful symptoms of a very fearful and disagreeable character. This is what we call dysmenorrhœa. We have spoken of a great many uterine diseases which would give rise to dysmenorrhœa, and will speak of this condition as we have of others as a symptom of some other general or local trouble, depending on some cause, such as flexion, fibrous polypi, cancer, and inflammation. Now, when we find a case of this kind, we call it organic dysmenorrhœa, for we must make a distinction in this disease, for we find some cases that are purely nervous, or functional,

and in speaking of this disease we shall speak of those two kinds.

Nervous dysmenorrhea we find in women who manifest an excessive irritation of the entire nervous system, or different portions of it. Those women are nearly all hysterical, and, by close examination, it is not difficult to observe in them some of those symptoms. But we should not judge from this that those cases are confined to the delicate, nervous, anæmic patient, for we find this form of dysmenorrhœa in strong, robust, plethoric women of good constitution. The symptoms of nervous dysmenorrhœa generally make their appearance two or three days before the menses make their appearance. The woman will evince a bad humor, be sad and downcast in her appearance, avoiding company, and seeking solitude, complaining of a general disturbance, which appears to run all over her, and which she cannot explain or define. They are very often affected with a very disagreeable disturbance of the digestive organs, and it is not uncommon for the patient to be seized with violent vomiting. Constipation follows those cases, and in fact the entire intestinal canal evinces considerable disturbance, and the process of digestion is nearly set aside, and after this state of things has been continued for some considerable time, this morbid action of the bowels brings on a nervous headache sometimes in one side and sometimes in the other, and sometimes in both at the same time. This headache may be followed by changes in the sight of the

eyes, and at times may be partially dim with an excessive secretion of the lachrymal glands, or an abundant flow of the tears, and then by degrees a dragging, painful sensation in the organs of the pelvis. Those pains are of a floating character, and are limited to the region of the womb, radiating towards the small of the back, and also to the breasts. The external parts are rigid and constricted, and at the same time convulsed; the urine is changed to a straw color and is alkaline in its reaction, and contains a great many organized bodies resembling vegetable growths, and as the menstrual epoch makes its appearance, these symptoms gain their maximum intensity, but when the courses have been well established, they gradually subside, and we find cases of those who suffer intensely just before the commencement of the courses, that are perfectly well some hours after, and get up and attend to their every day work. With each period those attacks are more or less painful and severe, and it is not uncommon for them to suddenly disappear without returning again, and we are not able to discover the cause of this condition.

In this form of dysmenorrhœa, an examination will not reveal any anatomical alteration, either in the womb or the appendages to the womb; yet it should be remembered that in dysmenorrhœa of an organic nature the menstrual epoch is preceded by symptoms analogous to those just described.

The cause of dysmenorrhœa is not very well understood, more particularly the nervous kind. It is pos-

sible that the abnormal irritation originates in the ovaries. At this particular time the nervous irritation of the womb exists at its highest, and both taken together may prevent the flow of the menstrual discharge. This engorgement, without the menstrual flow, may produce pressure of the nerve filaments, and in this way cause painful menstruation, or dysmenorrhœa.

Again, we may say that the abnormal irritation of the nerves of the organs of generation may cause reflex action on the neck of the womb, causing that organ to contract and shut up in the body the already secreted blood, and thus cause painful menstruation, or dysmenorrhœa. And we find this is just what takes place. After a strong pain lasting for several hours the patient suddenly expels a large quantity of blood, which is sometimes coagulated, and at other times liquid, followed by almost instant relief. In making up our conclusions, we may say that a fatal termination need never be feared in this disease; yet it will produce some of the worst kind of symptoms, such as hysteria and other abnormal nervous troubles. We have said that it constitutes one of the symptoms of hysteria, yet this disease may be produced by other causes, especially if a predisposition exists in the patient to it, or to this disease.

Those troubles of a hysterical nature may be direct and immediate, or indeed the digestive organs may be affected by it in a sympathetic way, all caused by an increased action of the nerves of those parts.

This course of things may continue until the process of assimilation is set aside in part or entirely. The nervous system in those cases would suffer for want of nutrition, and in the course of which the irritability would be considerably augmented. Those symptoms all taken together are what we call hysteria, which is always a nervous disease and real.

I know that a great many think that this trouble is all a notion, or supposition; but hysteria is a disease of a nervous character, resulting from an excessive action of the nerves supplying the organs of generation. It is said by some very good writers that nervous dysmenorrhœa is the cause of anatomical changes in the structure of the body of the womb, but we are inclined to think that organic changes are the cause of dysmenorrhœa, and that those organic changes have existed for some time in a latent stage, and have escaped exploration and notice of the patient. We may often find just such cases after some organic changes have been noticed.

TREATMENT OF DYSMENORRHŒA.

In treating this disease, we should at all times remember its cause and origin; and as we found while treating of its history that it was produced by some excessive action in the nervous system, we should conclude that narcotics, such as opium or belladonna, would play the most important part in the treatment of this dreadful disease. For local application we

may use chloroform and aconite in the shape of liniment over the region of the womb. Take one ounce of chloroform to three ounces of tincture of aconite and make a liniment and use as directed.

We should be very careful with this liniment as it is very poisonous. Wash the hands and parts after its use. Medicated balls may be used and introduced into the vagina. Take some kind of wax and lard mix with belladonna or opium, and make into small round balls, and press them up against the womb, and let them remain two or three hours. We gain some of the very best results from their use.

Sometimes we can use these same medicines in the shape of injections. Take twenty drops of tincture of opium in a tea cup of warm water, and use as an injection into the vagina. The injection should be retained there for some time.

Finally we think more can be done with warm water injection in those cases of constricted and painful menstruation, when the pains are the result of the obstruction of the flow in the neck of the womb, (and we think that this is, as a general thing, the cause of the pains,) than can be done with any other form of treatment. We should have the patient sit down on a large vessel of warm water, and use a self-injecting syringe. This treatment should be continued for twenty or thirty minutes, and then repeated in a short time.

This plan of treatment may be very much assisted by the use of warm hip baths. This last treatment should not be neglected. In all of those cases it should be continued every day. With or without the pains, after the courses have left the patient, and during the interval, we should do everything in our power to build up the general health, by good care, good diet, and, in fact, a good regimen in every particular. The patient should be put on a treatment of iron, and the best preparation is the tincture. It should be given in twenty drop doses three times a day, in a tablespoonful of water, after eating. We are to expect the good effects of this medicine by its continued use for weeks, or even for months. The object of the continued use of the medicine is to restore to the blood some material that it is deficient in, and that is its coloring properties. We can do more in restoring to the blood its color with iron than we can with any other medicine. I would recommend to be used during the interval of paroxysms the tincture or fluid of black snake-root. The fluid extract may be given in twenty drop doses, in one ounce of water, three or four times a day, and this should be continued two or three months. We find that some of the very worst cases yield to this treatment, after every thing else has failed.

And, lastly, in this nervous form of dysmenorrhœa, of a hysterical character, we may use what is called anti-hysterical medicines, such as castor, assafœtida,

musk, and amber; but it must be remembered that all of our efforts will be in vain without good care on the part of the patient.

CHAPTER XXI.

We will now speak of dysmenorrhœa of a congestive character, for we find quite a difference between the nervous form of the disease just described and the congestive form. In this form of dysmenorrhœa we find all the symptoms to be of a congestive nature. All or nearly all of the organs of the pelvis, or the organs of generation, undergo a decided congestion two or three days before the time for the menses to make their appearance; the patient feels a sensation of fullness, weight, and heat, in the region of the womb, pain about the small of the back, a frequent desire to go to stool, the bladder becomes irritated and painful, with a desire to urinate frequently; and this as a general thing is followed by symptoms of a febrile character, first in the organs of the pelvis and then extending to the whole system. The face is red and full, the pulse strong, and the signs of cerebral or brain congestion make their appearance very fast, and this is followed by a distressing headache; and it is not uncommon for this abnormal condition of the vascular system to give rise to palpitation of the heart

—and sometimes with delirium, convulsions, or coma. Now if we turn our attention to the organs of generation we find the temperature of the vagina very much increased, the womb is very much enlarged, tumefied and painful. This tumefaction as a general thing disappears in a short time after the courses make their appearance, and is strongly marked when the dysmenorrhœa is complicated with a chronic engorgement of all the organs of generation. This engorgement and tumefied condition of the womb can be recognized by the patient herself, and we may say that the tumor has been enlarging for two or three days before the courses make their appearance. In the early stages of the congestive dysmenorrhœa on the first day the flow is very scanty, being sometimes limited to a very few drops; but after two or three days the pains diminish in intensity and at the same time the discharge becomes more and more abundant, and the flow may become so excessive as to be pure blood and last five or six days. In those cases the flow becomes coagulated and passes in clots; and in some of those worst cases the mucous membrane of the womb is thrown off, or a part of it, at any rate. We find it at times thrown off in small pieces, and at other times it will be one or two inches square; it is always in fragments. Those membranes are not found at every menstruation; they will be present at one time and absent at others. This will depend very much on the pains, their duration, and their expulsive power. If we have a very painful and long con-

tinued case of dysmenorrhœa, with strong expulsive pains, we may then look for the membranes; but if we have a very mild, with little pain or expulsive contraction of the walls of the womb, the membranes will be absent. The patient as a general thing can tell a week or ten days before the menses return, by the symptoms in the region of the womb, that she will or will not pass those mucous membranes. Those membranes are formed on the internal side of the womb in a great measure in the same manner as the decidua, which is formed after conception by often and repeated congestion of that membrane, and this of course would produce an excessive development. After the membrane has been enlarged to such an extent, its detachment takes place either by an accumulation of liquid between the membrane and the walls of the womb, or by mechanical force, caused by the pains and contraction of the organs, which precede the menstrual flow.

Some tell us that this form of dysmenorrhœa is caused by a plethoric constitution, but we find this disease making its appearance in some patients who are at the time suffering from general debility; and we may go further, and say that nearly all of those cases are suffering from some form of anæmia, or a low and worn-out condition of the blood, which characterizes the disease. It is a fact, however, that the debility does not make its appearance until after the dysmenorrhœa; but we must remember that quite as often it makes its appearance before, and that the

anæmia or general debility must be cured before we can do anything in the way of treating or curing the dysmenorrhœa, which is only a symptom of something which has preceded it.

In speaking of the cause of this disease we should not overlook the very many organic changes of the different organs of generation as stimulating and causing this form of dysmenorrhœa.

In treating on the cause of this disease it should be borne in mind that the egg situated in the ovaries may be deeper and require more congestion and a longer time to effect the rupture of its sac than those that are superficially situated, and thus the menstrual discharge is kept up for a longer time, and as the egg is deeper in the substance of the ovaries it will take more action of all the muscles of the parts, and thus produce the pains of dysmenorrhœa. We may then with just propriety give this as one of the reasonable causes of this disease. We may say again that any change of the organs of the neighborhood that would obstruct the return of venous blood would cause congestion of the womb and be a cause of dysmenorrhœa.

In making up our conclusion about this disease, we may say that when congestive dysmenorrhœa exists without any organic changes in the parts themselves, it is more favorable than the nervous form, and is not as a general thing thought to be very dangerous, and will yield to treatment much more readily. The disease is cured spontaneously much more frequently

than the nervous form. We may at any rate count on relieving our patient to some extent if proper treatment is used. If the patient be left to herself in this form of the disease, and waits for a spontaneous cure, she will be very much disappointed; and the congestion will continue in the form of an exudation in the neighboring parts, as the body of the womb and ovaries. We will consider those cases less favorable when the mucous membrane of the womb is thrown off at every menstrual discharge, as described above, and when the disease is due to the formation of those membranes.

We come now to speak of the treatment of this disease, and would say that everything should be done in the interval of the periods to diminish the local congestion. This may be done in the first place with mild cathartics, such as saline waters or seidlitz powders; but we should never give strong cathartic medicine, such as pills, calomel, or medicine of the same kind. We will find the very best results follow local bleeding, or scarification. This may be done with a small knife on the end of a long probe, and by the assistance of the speculum. This treatment should be on the mouth and neck of the womb, and continued for some time. Notwithstanding our patient is suffering from anæmia, or general debility, the treatment will unload the engorged bloodvessels of the mouth and neck, and even body, of the womb, without producing a too considerable loss of blood, which the patient could not stand at this time.

We would very favorably recommend in this disease the continued use of iron, notwithstanding some very good writers claim that a continued use of this medicine is always followed by local congestion of the organs of the pelvis. We think that by a continued use of this medicine for months a great many of those diseases caused by anæmia, or general debility, may be cured.

We would further recommend as an assistant to the local bleeding, or scarification, internal vaginal injections of warm water, more particularly when there exists beforehand a local chronic engorgement. Those vaginal injections should be continued for three or four days, or even longer if the nature of the case demands it; and they may be very much assisted by warm hip-baths or bathing the body, partially or entirely. The pains generally disappear after the application of the knife to the mouth of the womb or after the patient has been bathed in warm water, or even after a dose of opium.

Some writers recommend in those cases of expulsion of the mucous membrane that the internal surface of the womb should be cauterized with a stick of nitrate of silver, but I cannot see how this could fail to do harm. It surely must be admitted to be a very heroic plan of treatment, and I think we can do more good with a milder form or plan, and hence we would limit all of our treatment to the external local parts, and if they do no good, will certainly do no harm.

It must be remembered in this disease, as in others, that all of our efforts for good will fail if proper care and attention is not given to the care of our patient. Everything should be done to improve her general health—good diet, good care, and regular habits.

CHAPTER XXII.

HYSTERIA.

This disease belongs to females, yet we often find this pathological condition among males. This name embraces a great many morbid conditions, all of the nervous system. The mind is very susceptible to the morbid condition, and will enter, as a morbid element, into a large number of those affections, and appears powerless to resist the impressions made upon it by this disease, and will yield to nearly every impression or emotion when those symptoms make their appearance, with weeping or laughing, without a cause, and are irrepressible, sometimes laughing and weeping, and at other times weeping and laughing, alternately changing abruptly from one to the other. We say the patient has hysterics, and we may say that this disease is a real pathological condition, and is just as much a disease as intermittent fever. They are all changes of the nervous system.

The word has gone abroad that hysteria is hypothetical, made up by the free will of the patient, and

could be thrown off at any time; and this notion of the disease has become popular, and it will not do for medical-men to talk very much about hysterics to their patients, think what they may; but should keep their mouth shut, and act accordingly.

Hysterics is a disease, and must be treated as such and will yield to proper treatment just as readily as intermittent fever. If we talk to patients during the paroxysms of this affection they will try to enlarge on their symptoms, and to exaggerate all of their feelings, and make you think something awful is going to happen to them very soon.

We should always make due allowance for them, remembering that the mind is at fault. They will sometimes try to make you think that they are laboring under some tremendous organic disease of the heart or lungs, and that their disease is incurable; and that it has been sent upon them as a punishment for something they have done.

The patients who suffer from this disease will experience considerable pain about, and in the region of the stomach, with a fullness in the throat as though some foreign body had lodged there, and that in spite of all their efforts it could not be removed. This last symptom is one of the very best signs of hysterics.

When we have a patient with these last symptoms well marked, and she is all the time trying to swallow something, we may take it for granted that she has the hysterics. To the above symptoms may be

added a number of morbid phenomena, such as headache, irregular chills, yawning and stretching, twitching of the muscles, and even cramps. But we may say that those mental disorders are not confined to the menstrual epoch, but may make their appearance in other diseases.

We will speak now of the severe forms of this disease, and find that it is sometimes associated with convulsions and coma. What we mean by the term coma is a languid, lifeless condition, after the convulsions have left the patient. The convulsion in hysteria, and the coma that follows, is not so marked as it is in epilepsy. In some of those cases we have the convulsions without the coma, and then in others we have the coma without the convulsions. The convulsions are, as a general thing, gradual. They give warning before they make their appearance by this choking and swallowing, and nearly all of those symptoms that we have enumerated above.

The convulsive movements generally make their appearance about the head and face, the eyes and eyelids and eye-balls begin to jerk and show signs of convulsive movements; and those symptoms may be transferred to other muscles. It is not uncommon for the extremities and body to be used the same way. One characteristic sign of this form of convulsion is that the movements of the limbs are not always without the assistance of the will; the patients, by their own action, help the convulsive movements along by throwing themselves about on the bed or on the car-

pet, to prove that they are very bad off. They should be restrained from such action, and then it is that they manifest a great deal of strength; this is mostly followed by a few moment's repose or coma to be renewed in a short time in the same way. Now we may say, and justly too, that those motions are purely voluntary, but they are prompted to this action by a delirious condition of the mind, and it appears that the mind remains in that state until the patient is relieved.

With reference to the consciousness of the patients, it appears that they do not understand what is going on, or know what they are doing; yet they will remember every word that is said; and if we wish to talk about the case, we had better go out of their hearing, for when the patients get well we will hear from them. The face is changeable, from a red flushed look, to a white, or pale. The breathing is sometimes very much distressed, and out of order, by being changed from fast to slow movements of the chest and lungs. The foaming that we find in epileptic fits is wanting in this disease.

In epilepsy, we should at all times place a piece of cork between the jaws to keep the patient from biting the tongue; but that is not necessary in this disease, for it scarcely ever happens. The pulse, which is very much disturbed in epilepsy, is never, or scarcely ever out of order; but, as a general thing, is in a quiet regular form, as though nothing was the matter; and also the symptoms of the mouth, wind-pipe, and

nose, which are so common in epilepsy, are not found in hysteria. The action of the heart is sometimes violent, and at other times more composed, producing a circulation of the blood accordingly. It is not uncommon for the circulation of the blood to be very tranquil in this disease, and at the same time to be regular. The convulsions come on gradually, lasting sometimes much longer than those of epilepsy. It is not uncommon for them to last for hours, or nearly all day, and then gradually disappear with laughing, crying, and groaning, as described above.

We are sometimes at a loss to discriminate between this disease and epilepsy, but we should remember the strong points made above.

The paroxysms in hysteria are gradually formed, that is they come on slowly; while in epilepsy they are more abrupt in making their appearance. Foaming at the mouth, of saliva and blood, is never present in hysteria, while it is the strong, characteristic sign in epilepsy. And then again, in hysteria the convulsions last for hours, while in epilepsy they last only for a few moments. Epilepsy is followed by profound coma, and the patient is not conscious of anything in the room, or around her; while in hysteria the paroxysm is not followed by this profound stupor; but it is only partial, and she knows everything that is going on, and will imagine and make up things that no one but herself ever thought of.

Now, we may have cases of this disease without those strong points being manifested, and where the

patient will remain during the interval of paroxysm in a state of repose and tranquil sleep.

Hysterical symptoms may, and very often do make their appearance in nearly all diseases of the womb and organs of generation. This state of coma that follows is more like sleep; but if we try to arouse the patient, we will find that our efforts will be ineffectual, and that she is in a state of stupor and not sleep. This condition may continue for some time, and then be followed by another paroxysm. The rigid condition of the muscles of the jaws prevents the mouth from opening, and it is not uncommon in this condition to resist all our efforts to relax them; and it may continue all day or night, and, without proper treatment, it may last longer—even days—and the patients at the same time be conscious, and know everything around them; but they appear to have lost the sense of touch, and they do not suffer pain, even from pinching, and nothing but continual heroic impressions will bring them out of this condition, such as cold water, cold applications, cold baths, etc.

Hysterical convulsions are apt to cause great alarm among the friends; and even physicians have been greatly troubled to distinguish this condition from epilepsy, or apoplexy. We should remember at all times, when treating this disease, the strong points made above.

I attended a case once where nearly all the symptoms pointed to epilepsy, and the friends thought the patient would die, and said nothing in the world

would save her, because, they averred, this had been coming on all day. That, of itself, was enough to remove all doubts about the paroxysm being epilepsy; and, upon enquiring of her mother, I learned that she had those spells every three or four months, but not so bad, and that two days before her courses she had walked to town to see friends and had exposed herself a great deal by getting her feet wet, and getting very warm in walking, as she was very large. A little time, with the tincture of assafoetida, brought her out all right, and next morning she was well. I refer to this case to show how careful we should be in making up our conclusions about those cases.

I know of some very stupid mistakes, made even by doctors, which are very humiliating to a man's good name after it is all over.

I spoke of apoplexy being in the way, and causing trouble. In this disease, we should consider the patient's age and her former habits; and, if about the menstrual epoch, we should give ourselves plenty of time, and not jump at our conclusions in a case that requires so much judgment.

Again, we find a partial coma existing and following inflammation of the brain; but the inflammation is very apt to raise the general temperature of the body, and if we apply the thermometer, we will find that the general heat has been very much increased, while hysteria exists without being complicated with any other disease—it is not accompanied by any elevation of the temperature of the body.

With reference to the cause of this fearful and quite common disease, we may say that it is depending on some altered or morbid condition of the nervous system, and those influences are brought about periodically just in the same manner that some peculiar change in the nervous system brings about intermittent or remittent fever. I do not wish to say that they are both produced by the same cause, but wish to convey the idea that hysteria is produced by some unknown cause that exists and has its origin in the nervous system, and that those conclusions are not more unreasonable than to say that intermittent fever is produced periodically by some change made on the nervous system.

Now, one of the most prominent symptoms of this disease is a want of firmness of the will; the patient appears to give way to her condition and feelings. This, we may say, is caused by some changes made on the brain, which appears to be in a pathological condition, or in a state of weakness or debility. Now, if we can get the patient to understand her true condition, and not think that her troubles are incurable, as a great many do, and then make some strong impressions on her mind, and give her to understand that she must resist those feelings, and observe all the rules as laid down in the science of health as regards good treatment, then we may expect some good results from our treatment; but if we cannot persuade our patient to change her habits and ways, all the medicine in the world will do no good, and all our

efforts will be in vain. In giving medicine in this disease, as well as all others, we should remember that it will do no good without proper care. Our attention may be good and pure, and our medicines may be also good, but without proper care on the part of the patient when she is up and able to take care of herself, and by the nurse when she is not able, all treatment will fail and be worse than vain.

We may say that hysterics may occur at any age, but is not common in old age and not very common in girls—yet it does sometimes appear in those ages ; but those between the ages of sixteen and twenty-five are affected with the disease more frequently. Hysteria, as we have found it, is a disease of females, yet it is not uncommon among men and boys. I have seen three or four well marked cases among young men.

I once was called in great haste to see a young man who it was thought had epilepsy, or fits, and this one was the third fit he had had, and he had been told by his physician that the third fit always killed : and as the young man would not die, they knew not what to do. I found the patient breathing regularly ; his pulse was good ; the temperature of the body was not elevated ; no foaming at the mouth—no cross-eyed look, and he appeared to be saying something that we could not understand. I remarked to the friends that I thought there was no immediate danger ; that it was a condition peculiar to his age ; and that this fit would soon leave him, and that he would in a short

time out-grow the disease; and in this mild way they began to think he would not die at once, and they allowed me to introduce my treatment. A tub of cold water was brought in and a few applications of that made by pouring bucketful after bucketful on his head and face, which soon brought his speech more intelligible and plain, and then we could all understand just what he had to say.

This disease appears to be a constitutional weakness in that direction. There are persons who are subject to it by means of their own organization, and others, again, who would never have it in the world. It is not a disease like small-pox or remittent fever—being no respecter of persons—but this disease has its favorites, and always makes its own choice, going about seeking whom it may devour.

The hysterical predisposition may be in families or in different members of the same family, but we may say that the most frequent cause in those predisposed to the disease is anæmia, general debility, overtaxing of the mind, mental anxiety or grief, and the worn-out condition which is apt to follow other diseases; or, in fact, any strong mental impression made on the brain and nervous system is very apt to be followed by hysteria.

In making up our conclusion about this disease, we may say that it is not dangerous; but we should remember in treating this affection that it may be associated with other diseases that are serious, and this is only one of the symptoms of the nervous system

made so by the impression of the primary disease.

We now propose to speak of the treatment of hysteria, and it should be conducted with two objects in view—first, with reference to the hysterical condition; and, second, to the condition of the fits, or paroxysms.

The predisposition to this disease should be treated with mild soothing remedies, and if possible produce some quiet state of the nervous system as soon as possible, and by so doing we may prevent the convulsions, or fits. Everything should be done in this way that can be done in the early stages; and as we found while describing this trouble above that it made its appearance two or three days by hysterical symptoms, this is sufficient for us to begin with our treatment to bring about a quiet state of the nerves of special sense, and prevent the paroxysm.

Tincture of assafoetida or valerian may be given in full doses. Ether or belladonna are appropriate treatment. I have gained some very good results from bromide of potassium. Alcoholic stimulants may be given with good results in nearly all cases; but we should remember that the most important part of the treatment is good care and hygienic regimen, and everything should be done to strengthen both body and mind; good diet, plenty of exercise in the open air, regular habits, and plenty of sleep.

This last remark, with reference to sleep, is very important. No case can get well unless the mind is quieted by plenty of good, sound, refreshing sleep. Everything should be done to direct the mind from

the sentiments and thoughts that have been the cause of the trouble. All causes should be removed, and the patient encouraged to strengthen the mind against every appearance of evil, and not to give way to emotional disturbances or thoughts.

Every case, then, must be managed according to the symptoms and the nature of the case. The moral and intellectual treatment that would be applicable to one would not be to another ; but every case has its own peculiarities and should be treated accordingly.

We will speak a few words only with reference to the convulsions, or paroxysms, of this disease. We may say that little or nothing can be done in the way of medicine, and if they were left to pursue their own course—only preventing the patient from doing bodily injury—they would wear out the paroxysms and probably be as good for the patient, but we are called by the friends to do something to cut short the distressing condition ; and this can be done by proper means, but we think that the patient would be just as well off without such treatment. The tincture of valerian should be given in large doses.

CHAPTER XXIII. .

PROLAPSIS OF THE VAGINA.

We propose to speak of this morbid condition independent of prolapsis of the womb. In prolapsis of the womb it is not uncommon that this disease should be complicated with it, but we have spoken of this unnatural condition while speaking of displacements of the womb, and will only speak of this condition when it exists independently of any womb displacements. Considering the relations that the vagina sustains with the womb and bladder, and in fact all of the organs of the pelvis, it is surprisingly strange that we do not find this disease more common than we do. In the region of the pelvis are a great many organs, and all, as it were, pressing down on the vagina and at the same time undergoing changes periodically and making uneven pressure at different times. Sometimes this organ is laboring under a great

burden, as is the case during the courses or menses ; and at other times it is bearing up under the weight of the bladder—for we know that according to our customs women are more imposed on than men, and the bladder is allowed to get very full and demonstrates a great amount of weight, which is calculated to crowd the vagina down out of its natural position into the external world. This is what we call a case of prolapsis of the vagina. We wish to speak of the different changes that the womb undergoes as a cause of this disease. At any menstrual epoch this organ gets very heavy, or unnaturally so, and all the accumulated weight to a great degree must rest down on the wall of the vagina and its attachments, and in this way is a great exciting cause. But we may say that of all the influences and predisposing causes that this organ is subjected to for the purpose of producing this disease, none are greater than pregnancy and parturition. The increased excessive volume and the elevated condition of the lower part of the womb increases the length of the walls of the organ during the first months of pregnancy. This increased length and breadth produces a dilation of the walls and they become very thin and are less capable of resisting the pressure when it comes to parturition or confinement.

Now if after confinement the organ has the power to contract and resume its condition, although liable to prolapsis, it does not cause any danger to the disease ; but from any cause, no matter how small, we

will find that our patient has partial or complete prolapsis of the vagina. One of the worst causes is getting up too soon ; and I would warn all women against this foolish habit. You once contract this habit and you will never get clear of it—that is, without feeling some of the symptoms at the next confinement. How careful, then, we should be about this one thing. Often repeated pregnancies will dilate this organ and it will become more and more relaxed and yield more readily to the powers and pressure which are calculated to displace it. Sometimes when parts are in this relaxed condition the slightest pressure is calculated to press the organ downward and forward, and in this way produce prolapsis of the vagina. We can see what tight lacing or corsets would do with a woman that was disposed to this trouble, by crowding the bowels down on the vagina.

Again, the womb may be the cause of prolapsis of the vagina independent of pregnancy, or the process of parturition, or labor, when it is the seat of fibrous tumors or fibrous polypi. This will cause the organ to increase in weight, and when those tumors extend into the vagina they will cause that organ to relax and extend its walls, and on removing the tumor it will leave the vagina in a relaxed condition ; and as the parts are much larger and more extensive, and at the same time the contraction is very weak, it is then more apt to be prolapsed.

All this assists in breaking down the attachments and ligaments that hold the organ in its natural or

normal condition, and we should remember that after the organ has been once prolapsed it is like the womb—it will return at every opportunity or cause.

Sometimes we have a prolapsis of the upper part of the organ, or the superior half. In order that this should take place we can see that the upper muscles must be entirely relaxed or not capable of contraction; and we think that this is the more important part or kind of prolapsis of the vagina when the upper muscles called *constrictor* have given way and allowed the superior part of the organ to become prolapsed.

In speaking of the symptoms of this disease we may say that the most important sign or indication is the tumor that has made its appearance in the external world, and that it has been formed by the prolapsed walls of the vagina. Now if we examine this tumor we find, if it has not been prolapsed too long, that it has not changed the color of the mucous membrane; and if the tumor is not very long, nor has been exposed too long, we will find that it has not undergone any considerable change. But if this state of things is permitted to exist for any length of time we find the tumor undergoing a great many alterations, such as excoriation, ulceration—and the external surface of the tumor is very red and tender, and at the same time painful. While the organ remains in this condition it must be remembered that the mucous membrane is on the outside, and that it is subjected to all the friction of the clothes and thighs and the continual excoriating effect of the urine. If this or-

gan is permitted to remain in this condition we find that the mucous membrane is changed, the secretion dries up and a coat of new cells is formed, called epithelium cells, resembling epidermis or true skin; the surface is no longer smooth and even, but is very rough and dry and is not unfrequently the seat of deep ulceration.

The treatment of this accident is quite important, for we found that it would not do to let the patient go and wait the result, or to expect a spontaneous cure by the laws of nature.

In speaking of the treatment of prolapsis of the womb we gave in detail the treatment for that disease. The same rule will hold good in prolapsis of the vagina. The patient should be put to bed and remain in a horizontal position until the prolapsis is overcome. We should use stimulating medicines as injections if they do good, or anything that will stimulate the muscles to contraction. Oak bark may be used, or a solution of that bark. A weak solution of nitrate of silver may be used to a very good advantage. We may use mechanical means, such as pessaries, or any instrument that will hold the vagina up to its natural or normal position, without pain.

The prolapsed vagina should in the first place be put in its natural position, and then apply the treatment in the way of a solution thrown into the organ with a syringe, or by mechanical means, such as pessaries, or other instruments. The same treatment that we recommended for prolapsis of the womb will

hold good in prolapsis of the vagina. But I would say, while speaking of the treatment of this fearful disease, that no woman can expect to get well without good care on her part. After the disease has been contracted it is one of the worst troubles to manage; and after any confinement it will return. Then we should take good care and not produce it.

CHAPTER XXIV.

VAGINAL FISTULAS.

We now propose to speak of vaginal fistulas, and will say that they are not very common, yet are of sufficient importance to claim our attention, and when they do occur are the worst kind of diseases to control. What we mean, then, by this term, is an opening leading from the vagina into the bladder in such a way as to permit the urine to fall from the bladder into the vagina, either at the lower or upper portion of the organ. Those openings that take place may be of different sizes, varying from the size of a pin's head to the end of the finger. We find in such a condition that the bladder is unable to retain the urine, and an infiltration takes place continually into the vagina, and this continual flow of urine prevents the organ from being distended to its natural condition, and after the patient has remained in this condition a contraction takes place and the organ is not able to retain the given amount of water after she has been permanently cured. This will be overcome, however, after a considerable time.

In speaking of the causes of this disease, we say that it is produced as a general thing by cancerous inflammations which have their start about the neck and mouth of the womb and then is gradually extended down into the vagina. This disease may also be caused by parturition, arising from hard and tedious labors. We once treated a case that was produced in this way. The patient, a large, healthy Irish woman, knew nothing of her trouble until she found herself unable to pass her water. She sent for her physician, who told her that it was the want of power in the parts and that she would be well in a few days, but when the few days were past she was no better. I, in company with another physician, found her in this condition. All the water that was passed out of the bladder came through the vagina.

Some say that the application and use of the forceps will produce this opening. This is what the woman claimed whose case we have given above. She said that the instruments cut her and the doctor would not stop. My own opinion is that the instruments produce very few of those cases, and that we must look to other causes for an explanation of this condition. I think that a partial rupture may take place from the anterior portion of the vagina during labor, and this rupture may extend into the bladder.

I think that it is not unreasonable to come to such conclusions, and I think also that the condition is produced in this way as often as any other. After the muscular walls of the vagina have been stretched to

such an extent it is not difficult for ulceration to set in and produce fistula between those two organs.

One of the most common symptoms of this disease is the continual flow of urine from the vagina. If the fistula be large and in the upper part of the bladder the flow of urine will be continuous in any position that the patient may occupy. If this state of things is permitted to exist, the flow of urine will spoil her clothes and produce a disagreeable odor, which is calculated to make the patient lose all personal respect for herself, and she is liable to relapse into a low, melancholy condition, and is a burden to all; but when the fistula is small and situated lower down in the bladder, it is not so bad. When those symptoms are all present it is not difficult to make up our minds what the matter is with our patient or what the pathological conditions are, as this incontinence from the vagina is positive; but when very small fistulas exist it is not so readily come at—the flow of urine is not so abundant and may take place in the natural way. We may say that all the parts of the vagina and neighboring organs should be kept as much as possible at rest and quiet, more particularly if any considerable degree of inflammation exists in the parts.

In making up our conclusions about this disease and giving our opinion, we should be very careful to remember that a spontaneous cure is hardly ever effected, and after using all our instruments and skill our efforts will be in vain. We are now working

with an ulcer of the worst kind, and rendered much more so by the continual presence of the irritating urine, which is as a general thing the cause of the ulcer or fistula not healing or getting well, and all our efforts to keep the urine from the parts will do little or no good.

I once saw a case operated on at college, where the edges of the fistula or ulcer were considerably elevated and hard. The surgeon thought that those edges must be removed or cut off before the operation could be proceeded with or it would not heal, and the operation would do no good. He then proceeded in this way, but in a few days the stitches gave way, owing to the tension of the parts, and his cutting had made it very much worse.

We come now to the treatment of the disease, and as it is a work for the surgeon, we will not go into detail with reference to this part of the management, but would refer the reader who may wish to look up this treatment to works on surgery.

The first object of our treatment should be to keep the urine from the edges of the ulcer or fistula, and bring the parts together so they may heal.

The first object can be brought about by using cotton. Put the patient in sitting posture, and if possible keep her there, for this is the most natural way for the bladder to be relieved.

Use, also, the tampon or plug for the vagina, and this should be done with great care. The object of this tampon is to prevent any of the urine from

passing out over the ulcerated edges of the fistula, and to force it to pass out of the bladder in the natural way.

We should use stimulating applications to the edges of the ulcer if necessary, such as the nitrate of silver. This will hasten the healing very much if the edges are not permitted to separate, and will in some cases produce a cure; providing, however, that the fistula is not too extensive and not of too long standing. This plan of treatment is for recent cases only. If the case is of long standing, we must resort to other treatment.

We would recommend caustic in all those cases of small openings in the upper part of the bladder when they are of a recent date. The nitrate of silver may be used in solution, ten or twenty grains to the ounce of pure water, applied with a camel's hair pencil, first introducing the speculum.

It should be remembered in all of those diseases that they cannot be cured in one or two days, but it takes time. No special number of days can be given. The patient must remain quiescent until she is well.

A great many times after this disease has been operated on and a great benefit has been realized by the patient from the operation, part of the ulcer or fistula will not heal. It is in those cases that we may expect the very best results from the use of caustics. They should be used in solution, and will complete the cure.

CHAPTER XXV.

INFLAMMATION OF THE VAGINA.

The vagina is the seat of local inflammations. They may be chronic, in the shape of catarrh, or they may be acute, characterized by a change in color, from a pink to a bright red. The mucous membrane appears to be very much elevated, and is easy to be removed and bleed, and anything that is brought in contact with the surface is calculated to increase the hemorrhage and produce pain. This local congestion is followed by an increase in the secretion of the parts about the third or fourth day. This inflammation may extend all over the internal surface of the organ, or it may be limited to the upper or lower parts, but is the most common at the lower part. If the inflammation is limited to the upper part of the vagina, it may extend to the womb, and over the mucous membrane of that organ,

Inflammation of an acute character may make its appearance in the vagina, and if not cured or removed will run into the chronic form, or catarrhal kind. If

the organ be examined in this condition, it will present a rough appearance by loss of parts of its mucous membrane, having changed its rose color to a pale or livid appearance, and will bleed from the slightest touch

It is this form of inflammation that causes falling of the organ, or the relaxed condition following this disease. When the mucous membrane of this organ is in a perfectly natural condition, the secretion is not very abundant; but only sufficient to keep the mucous membrane and the parts in a smooth natural condition. After the inflammation has continued for some considerable time, this secretion is changed to a thick, white, viscid liquid, which will adhere to the walls of the vagina. This secretion has at all times an acid reaction, or an acid composition, which will change litmus paper red.

Just before and after the menses make their appearance, this flow is sometimes very abundant. If the case has been of long standing, the secretion will be almost in the shape of leucorrhœa, or whites, it will be so abundant.

The color is also changed at different times before and after the courses, and in proportion to the organized matter that it contains. Its color will be either yellow or white. In the first stages it will be clear, or like milk; but after the disease has become more permanent, it will be changed to yellow.

We think that the vaginal catarrh, as the result of chronic inflammation, followed by leucorrhœa, or

whites, is one of the most common diseases of the genital organs, although we are taught that it is comparatively not so.

The causes of this disease may be many, or it may exist, comparatively, without any cause. Any local irritation that acts directly on the mucous membrane will cause the disease. This is very often the result of repeated abuses, and it is not uncommon for the abundant secretion to be the cause of the local inflammation. Anything that excites the mucous membrane will cause it to pour forth an abundant secretion, and if this secretion is permitted to exist, it will bring on local inflammation.

The mucous membrane of the vagina is like all other membranes of this kind—it is very easy to be brought under the influence of inflammation by cold or chills; or getting the body or feet wet may be the exciting cause.

This chronic catarrh of the vagina may be followed by inflammation of the womb and its neighboring organs; and then, again, inflammation of the womb may cause this disease. Another very common cause is anæmia, general debility, or chlorosis. This worn-out condition brings on chronic catarrh of the vagina at any time.

Nearly every case of scrofula or consumption is suffering from this disease.

We may say, in making up our conclusions about this disease, that when it is taken in time, and the proper treatment is given, it is not a danger-

ous disease, and does not last very long; but in most of the cases that we are called on to treat, the time to bring about this favorable result has passed; the patient, as a general thing, will never call for medical treatment as long as she can go about, and after everything that she can do fails, she will call the physician's assistance.

After the disease has become chronic, and has made some considerable impression on the constitution of the patient, we regard it almost beyond medical assistance; or, we may say that it is almost impossible to treat such a case successfully.

These remarks have special reference to those cases where the disease is complicated with other diseases of neighboring organs, and where the inflammation of the vagina is the result of impressive or morbid influences produced in it by those organs. We think that a simple case of the disease may be cured even if it has the chronic form.

TREATMENT.

In speaking of the treatment, we may say that everything should be done to remove the cause of the inflammation by keeping the parts quiet and applying some soothing applications, such as internal injections of warm water, and we cannot speak too highly of this treatment, as it will prove successful, if continued for some considerable time, after everything else has failed.

Scarification should not be resorted to without we cannot control the symptoms with other treatment. I think in this disease, as I do in a great many others, that we should not use heroic treatment without all others fail, and this is one of the affections that should be treated with mild remedies, and they should be continued for some time, with warm water injections. We may use nitrate of silver, or the sugar of lead, or astringents, such as oak bark, sulphate of zinc, and if the injections cannot be given, the solution may be applied with a camel's hair pencil. Another very good way to apply this astringent is to soak a piece of cotton in the solution, and introduce it into the vagina, letting it remain for some time.

When this disease is depending on some local or constitutional cause it must be removed; the debility must be overcome with good care, good diet, and some good tonics, such as tincture of iron, or anything that will improve the general health.

CHAPTER XXVI.

INFLAMMATION OF THE BREAST.

This chapter will be devoted to inflammation of the breast, and we propose to notice in the first place superficial, or that form of inflammation that has its origin just beneath the skin, called sub-cutaneous.

This affection may exist independent of other diseases of the organ, or it may be in connection with the more acute, or active forms of the inflammation. The congestion and inflammation that attaches to the areola, or the connective tissue of the breast, is only met with during the stages of pregnancy, while sub-cutaneous inflammation may be the result of other causes, such as exposure or cold.

The areola form is characterized by an angry, red color, and appears to the touch to be deep seated, and if this state of things is permitted to run its course, the breast will become tumefied and an abscess will form deep down in the organ, and if not opened at the proper time, will burst. This stage of inflammation will last five or six days before the tumor is

formed, and we may say that of all the diseases that a woman is subject to, this appears to be the worst. Very little can be done in the first stages. Warm fomentations, warm applications, or anything that relieves the pain. We may use the tincture of aconite and chloroform, applied with a brush, to a very good advantage. I have known this medicine to stop the pain when everything had failed.

We should, in the first place, make a free opening for the accumulated pus. This is the most important when the proper time comes.

We have been speaking of the first form of inflammation of this organ, and will now speak of glandular or inflammation of the whole organ. When it makes its appearance during pregnancy, the milk ducts are gorged with milk; while at other parts the glands appear to be solid and compact, from the infiltration or swelling of the glands, or parts. Now this accumulation in the ducts, if not absorbed by some treatment, will soon be converted into pus or matter. In this way those large abscesses are formed, many of which attain the size of a large tea cup, or even larger. Now if we examine closely this accumulated matter, we will find that it is composed of true pus cells, blood, and cholesterine, or the original first milk globules, out of which the milk is formed. We may say, with truth, that this is one of the worst and most disagreeable diseases that we have anything to do with. It is the most painful and fearful; and if the suppuration be very extended, it will produce atrophy of the organ.

What we mean by atrophy, is a loss of the substance of the gland—it will not be as large as it was before.

The cause of this disease is the functional activity of the breast, just before parturition or pregnancy. It has been known to make its appearance about the appearance of menstruation, the first time.

It may be during pregnancy that colds, violent emotions, pulmonary consumption, or lactation may be the cause of this disease, but the most common or frequent cause is the abundant accumulation of milk in the breast, or milk ducts, which, if drawn off, would not likely cause any bad results; but if permitted to remain, and act as an irritating cause, and this accumulation is getting larger all the time, until the power of the parts is overcome, and ulceration and suppuration is the result.

The symptoms of this disease are pain, redness, swelling, congestion, and tumefaction in the different lobes of the organ. The skin of the parts is puffed up, and very tense, warm, painful, and red. In the natural condition the breasts are smooth and even; but in this disease they are puffed up at different points, and lumpy, and at the same time very hard. If the inflammation is not subdued, the pains and heat increase rapidly, and the skin that was very red, becomes more livid or dark, and in a few days if the disease is allowed to take its course the breast will begin to show signs of a large abscess being formed on some part of the organ, and, if we examine it, will begin to fluctuate, and if not opened, will break about the eighth day,

If the abscess is allowed to break itself, that will not do very much good; the orifice will be so small that it will not convey the pus away, but becomes impeded, and in this condition produces an irritating action on the parts around. This irritation, or inflammation, may be conveyed from one part to another until the entire gland is in a state of suppuration and ulceration.

I saw a case of this kind once, and when the whole of the organ was in this condition, and the pus making its way from the breast by three or four orifices. A case of this kind is perfectly fearful, and very hard to manage.

In making up our conclusions about this disease, we may say that abscess of the breast is one of the most painful and disagreeable diseases that we have to treat; but, as a general thing, if proper treatment be given, it is not a dangerous condition to life. But if the patient is delivered, and suffering from general debility and anæmia, then it may result very hazardous to life.

TREATMENT.

In the treatment of abscesses of the breast, we may say that anything should be done to relieve the engorged breasts; that is the excessive amount of milk that has accumulated in them.

After the ducts have been emptied we should apply a bandage in such a way as to make even pressure all

over the organ, and, by so doing, we will keep the milk out of them, which is the great object of all treatment. We may use tincture of iodine applied with a brush; or warm fomentation, or anything of the kind. But if we fail in driving back the abscess, then it should be opened freely. After this operation has been performed, and the breast remains hard and tumefied, with extended inflammation, we should again use the compress and bandage.

The bandage should not be applied so as to hinder the free escape of the pus. If this should be done, our bandage will do more harm than good.

Everything should be done to keep up a healthy action of the parts, and keep the opening running freely. This is the most important part of the treatment.

After this has been done we should use warm fomentations to the parts, in the shape of hops, bran, or flax-seed; and above everything, the parts should be kept clean.

We should examine the opening every two or three hours to ascertain its condition, and know that it is running. After the wound or abscess begins to get well, that part of the breast will remain hard, or indurated. This condition may be overcome by the use of the tincture of iodine applied with a brush or camel's hair pencil. It should be remembered that some of those abscesses are very slow to heal, and sink or relapse into a low, unhealthy chronic state, which is calculated to wear out the strength of

the patient. This should receive prompt attention and treatment: the parts should be washed with warm water, and the deep ulcers washed out with a solution of carbolic acid, about five drops to the ounce of water, and this may be used three times a day with a small syringe.

CHAPTER XXVII.

CHOREA, OR ST. VITUS DANCE.

We will devote this chapter to chorea, or St. Vitus' dance. By that name we mean a peculiar disease of the muscular system, having its origin or cause in the nerves.

This peculiar and very strange disease is known by the involuntary action of the voluntary muscles without the will. It makes its appearance in one part of the body, sometimes in one side. The side of this muscular movement generally increases and is changed to both sides of the upper extremities. The movements of the face are the most marked. The most strange and ludicrous faces are made, and all without any effort on the part of the patient. This disease is so peculiar that it is only necessary to be seen once to be afterwards recognized ; and it is very hard for us to think that the motions are not purely voluntary and directed by the will. But if this disease becomes severe, the condition becomes fearful and distressing. This excessive activity soon overcomes the strength of

the patient, and the speech may be nearly lost, and walking or standing impossible. The true condition of this disease is that of paralysis, or a want of power to direct the motion, and the patient is thrown into one continued convulsion, which may last for days or even weeks. I once had charge of a case that lasted for three or four weeks and then gently gave way. One very peculiar symptom (if it may be called so) is a loss or suspension of convulsion during sleep. The disease may be, and is very often worse on one side than the other; and one hand or one foot may jerk all the time, and the other remain quiet. The affection is not accompanied by any fever or excessive heat. The patient is generally laboring under anæmia, or general debility. The peculiar and strange faces that the patient is continually making, give her the appearance of a foolish, or insane person. This disease is not entirely confined to females, but is often found in boys, and even at old age.

In speaking of the causes we cannot be exact; but think they are various. It has its primary cause in the nerve centres of the motor nerves. Fright, anger, or worms may be the cause of the muscular convulsion.

This disease, as a general thing, makes its appearance about the thirteenth year of age, either in males or females; yet it is not uncommon for it to appear later, or at any age, and last for three weeks or three months.

In making up our conclusions, we may say that the

disease is not dangerous ; yet that remark must be limited, for it is not uncommon for it to relapse into a chronic state, and terminate fatally. Treatment may be given of different kinds, but we may say it does but little good ; and, as the disease is very hard to handle, a great many remedies have been recommended. Everything should be done to remove the cause. Give tonics, in the shape of iron, barks, quinia, and opium. but we should use as the very best treatment, after constitutional, electricity ; this should be used every day for weeks. This will cure when all other remedies fail.

CHAPTER XXVIII.

SYMPTOMS AND DISEASES OF PREGNANCY.

We propose to take up the symptoms, signs, and diseases of pregnancy. In the general management of a pregnant woman we should avoid everything that would fatigue or prostrate the system. All mental emotions or strong impressions on all subjects should be avoided. The patient should give up gay company, such as balls, crowded rooms, and everything that would excite or keep her from a quiet life and regular habits. She should have reasonable exercise and do what will improve her general health.

Now one of the first symptoms of pregnancy that is made on the system is that of pressure, and this pressure manifests itself in some very strong actions of the bowels, which as a general thing are very costive—which is the result of the new relation being formed by the womb and other organs of generation; yet we sometimes find just the reverse the case, and the woman is suffering from a slight diarrhœa. But with reference to this torpid condition of the bowels,

which is the rule, we may say that due regard and attention should be paid, for we have some very stubborn symptoms following a protracted case of constipation. Habit has a great deal to do with it, and this condition may be overcome without any medicine by a proper attention on the part of the woman herself. Now if this state of things is permitted to exist it will bring on some very grave symptoms of the stomach, such as heartburn, dyspepsia, and acidity, which, though not very dangerous, cause a great deal of distress and vexation to the patient. A fluttering of the heart, or palpitation, may be caused by constipation, and this is quite a serious symptom, and in fact if permitted to exist will bring on abortion or miscarriage. This condition is brought on or caused by emotion or anxiety on some particular subject. This should be overcome at once by proper treatment—something that will quiet the nervous system. We may use in those cases opium, ether, or the bromide of potassium. I want to state with reference to palpitation of the heart that it is apt to make its appearance in the last months of pregnancy, when the womb is making great pressure upwards towards the heart and lungs. The best treatment for this condition is to put the patient in bed and keep the room cool, bathing the head and neck and also the upper part of the body with cold water. Pressure may be the cause of other symptoms making their appearance, such as cramps in the legs and thighs. This is the result of pressure on the nerves of those parts. It is not un-

common for the pressure on the thighs to be followed by dropsy and great swelling, but if the patient will lie down on the bed and relieve those parts from the load upon them, the swelling and dropsy will very soon disappear.

Pregnancy is apt to be followed by strange symptoms on the bladder. The patient has frequent desire to pass her water, and sometimes with much pain, which will extend to the rectum. Distention of the abdominal muscles generally causes pain similar and resembling very much those pains that follow inflammation. The muscles are very rigid and do not in some cases give way to the increased size of the womb, but remain tense and hard. This will cause a great deal of pain and trouble. I know a case of this kind that suffers almost death all the time when pregnant, from this hard, rigid condition of the abdominal muscles. Those pains may be distinguished from inflammatory pains by applying pressure. In the first condition—that of abdominal pains—pressure will relieve them at once, and this is one of the very best plans of treatment. Just apply a bandage around the patient so that it will draw regularly and evenly, and let it remain for some time and keep a gentle pressure on the womb and muscles, and this appears to give support to all those parts ; but it is very different with pains resulting from inflammation of the abdominal muscles. The lightest touch or pressure will give the most excruciating pain, and all treatment given to combat inflammation, so-called, will fail to

relieve the pain in the first case; but we must remember that those cases are not always present. We find that it is very frequently the case with women who have borne many children that the muscles of the bowels are very much relaxed and flabby, instead of being rigid, and in this relaxed condition it is not uncommon for the top of the womb to fall forwards and the mouth to shoot backwards toward the sacrum, or small of the back; yet this displacement is not attended with much pain, but is at the same time very inconvenient in a great many ways.

TREATMENT.

As for treatment, we should here again use our bandage that we recommended for pains in the abdominal muscles; but in those cases it should be very wide, and composed of some goods that will yield to the free movements of the lungs. This can be done by using some elastic belt.

A woman knowing herself in this condition should use care and judgment at all times. Heavy lifting is likely to be followed by dangerous symptoms, and may cause rupture of the bowels.

I know a woman that has not seen a well day for five years from this accident; or we may say from this carelessness.

Dropsy may be the result of pregnancy; as the enlarged womb increases in size and weight the pressure of the large blood veins becomes very great and

obstructs the returning blood to the heart, and the blood in this obstructed condition, or the watery portion, is driven back or out of its regular way into the cellular substance of the parts, and in this way produces dropsy, or swelling. This dropsy may take place in the abdominal cavity, and in this form would be called *ascites*.

Pregnancy produces a great many changes, or morbid conditions, which we take as a sign of this new formation. The secreting membranes that have been performing their natural functions now become morbid, the bowels are constipated, the bladder is tender and will not retain the water very long at a time, pains make their appearance where they never existed before, and will remain for a long time, sometimes until after delivery, or after the sixth month.

Pregnancy is apt to be followed by a low, melancholy, depressed state of the mind; fears will arise that something will go wrong. Women who suffer from such a state of mind as this never do well, and are slow to recover, after confinement.

Everything should be done to enliven her thoughts and give her to understand that no good can result from such a state of mind.

The morning sickness that generally makes its appearance after pregnancy, may be continued so long and so severe as to cause disease, or be a disease, and we find that some of those cases of long standing will resist all treatment. Medicine that is given by the mouth is resisted at once, and the patient continues to

vomit and get worse in spite of all our treatment; yet we should not give up our efforts. They should be continued with the hope of doing some good after a while.

Opium has been given for a long time and is a very good treatment. I think pepsin is the great treatment in this disease. Give it every fifteen minutes in a little water or milk. We should begin with a very small dose—say two or three grains, and gradually enlarge; this will relieve this disease when everything else fails.

I once was called to see a patient who was suffering from this disease in its worst form, and she had been taking medicine for three weeks without realizing any benefit whatever. I put her on the use of pepsin, and in two hours she was better; and I must say that pepsin is far ahead of all other treatment in this disease. But we cannot expect to cure all cases with this remedy, for we find cases that it will not reach, and nothing will relieve the patient but delivery or parturition.

We may use local applications, such as aconite, opium, chloroform, or a liniment made with equal parts of aconite and chloroform, and if the chloroform should be too severe, use a little water in the liniment.

We very often have associated with this disease a torpid state of the bowels. They are constipated, and in this condition should be attended to at once. Mild, laxative medicine should be given in the shape

of soda water, or seidlitz powders. Medicines of any kind, used during pregnancy, should be very mild. All heroic treatment should be avoided, and the patient kept quiet on a good, nutritious diet, and her clothing should not be binding.

CHAPTER XXIX.

ABORTION.

We come now to speak of abortion, and by this we mean the premature expulsion of the fœtus, commonly called miscarriage. This is brought on by some accidental cause, such as falls, blows, or by heavy lifting, or any unnatural exertion. Again, it may be brought on by a predisposition. Some women will abort about the same time in their pregnancy in spite of everything that can be done. This appears to be a habit.

Abortion may be classed in two divisions; namely: that of abortion and premature labor. If by any means the womb is caused to lose its contents before the sixth month of pregnancy, it is called abortion; after that, until the full time arrives, it is called premature labor. Some cases of abortion are attended with no danger, and others again are the most dangerous of all the cases that we have to treat. Doctors, as a general thing, would rather attend any other kind of a case than one of those dangerous ones. I

never had a case of any other kind of disease that was so perplexing and hard to manage as one of those abortion cases that came on during the first month of pregnancy, as they are much harder to handle than those that occur later. The mouth of the womb will not dilate, and the continual pains and flooding will wear out the patient.

The same treatment as in the early cases will not do in miscarriage. Women that have good health, and who take gentle and reasonable exercise, with proper care of themselves, are not apt to abort; yet all women are liable to, and some much more so than others. As for laboring women being more liable to this accident than those that belong to the so-called high life, we do not find it to be the case. Labor, or common work, will not hurt a pregnant woman, provided she takes good and proper care of herself. It is true she is more liable to accidents than the other class, but she has better blood and better health; and good blood is what the foetal development is depending on. No woman can go through with her pregnancy, and be delivered in the natural way with safety to herself and child, without good health; and if any difference is made between these two classes, it must be in favor of the woman that gives herself proper care in her work and regimen of health.

If a woman excludes herself from everything of this kind, simply because she belongs to the so-called high class, and gives her condition all of her thoughts and neglects the proper care that I have spoken of,

it is very likely that she will not go to her full time. Abortion is something that is almost entirely unknown among the Indians or uncivilized part of humanity. It appears to be a disease of the so-called refined life; but this remark does injustice to our women. A woman can be refined and educated and accomplished in everything that she should be, and not bring on abortion. It is the mock refinement that produces these effects, and not true woman's character.

Everything like tight lacing, or corsets, and entertaining fashionable company late at night, and in fact anything that the woman herself knows to be wrong, should be left off, for the sake of her condition.

We have stated above that abortion, with hemorrhage or flowing, is not dangerous. The first change that takes place is the detachment of the ovum from the womb, and it is this that causes the flooding or bleeding, and it is this that causes the danger. After all the bloodvessels have been ruptured and torn from the womb, and that organ does not contract, the woman is liable to bleed to death. The second action is the expulsion of the ovum after it has been detached; this is done by the contraction of the walls of the womb, and in this contraction to expel the ovum every bloodvessel is stopped from bleeding.

It is not necessary the vitality of the ovum be destroyed to produce abortion, for it takes place sometimes without loss of vitality or life.

When this unfortunate condition comes on in or during the first month of pregnancy, the ovum and

after-birth will, as a general thing, come away together, and this is as it should be.

When the placenta, or after-birth, is retained, it constitutes one of the most dangerous diseases that we are called upon to treat. Abortion may be accompanied by fearful bleeding, and put the patient's life in great danger; and those are the cases that we are called on to treat—those that are very light we, as a general thing, have nothing to do with. We may say that a case of miscarriage may last but a few hours, or it may be continued for weeks. I once had a case where the after-birth was retained for several weeks. No definite time can be given—we must content ourselves with attending to our patient when we are called on, let it be long or short. As a general thing it takes more time than we want to give.

We have stated above that the cause of abortion was of two different kinds; first, accidental, which may be called an exciting cause; and then, again, a predisposition, or habit formed, and hence some women will abort in the same month or week that they did before.

We propose now to notice the cause of this accident a little farther.

If we take a woman in good health, and while at work she receives a fall, or blow on the abdomen, or over the region of the womb, it will, as a general thing, be followed by abortion. We may say that anything that will produce the contraction of the muscular walls of the womb sufficiently strong to ex-

pel the contents, will be the cause of this disease. It may sometimes be mental impressions of a strange nature, grief or fear. I have known women that were suffering all the time, after finding out that they were pregnant, for fear something would go wrong before or during their delivery. Such women are not apt to do well.

We may state here that one of the most powerful predisposing causes is general debility, or anæmia, poor health, poor blood, etc. Some women are not physically strong enough to go through with their conception; they become pregnant while in this state and the development and growth of the new being dies for want of power and strength, and the mother's condition is not sufficient to supply this deficiency, or want of life.

Now some will tell us that abortion is brought on by the death of the fœtus, but our experience teaches us differently. We do not deny but what this will bring on abortion; but we know that it will take place without it, and that life is demonstrated after the expulsion of the ovum.

We have stated above that anything that would cause the contraction of the walls of the womb would produce abortion; but we must look a little farther back for a cause that produces this contraction, and we may state that the condition of the ovum, or egg, has a great deal to do in this matter of preserving its own life. The ovum, undoubtedly, after it has been impregnated, begins to take on new life and action;

the changes in the first few hours are very great, and if the ovum is not in a healthy condition it will not develope and grow. The membranes that surround it, called amnion and chorion, are not formed in the natural way, or normal condition, but are thrown up in rugæ or folds. This change in its formation, is of itself enough to produce abortion, and we are safe in saying that the improper formation, and the rupture of the membranes are the starting cause of abortion.

If by any means the amnion and chorion (the membranes surrounding the fœtus) become ruptured, abortion is sure to follow. It may not the same day, nor for a few days, but this rupture will cause a flow of the liquid surrounding the fœtus which will be followed by its expulsion. A knowledge of those facts has induced parties to undertake to bring on abortion; but we should remember that this is always done at the risk of the woman's life. This cannot be done with instruments without immediate danger of death, and I have been shocked by persons who appeared to have sense who would come and desire abortion produced on some one. They say that they have a friend that wants you to come and work in this way, and they are the friend every time. They want you to go and produce death on some poor girl or woman, to save themselves the trouble of being the neighborhood talk, or to save their good name; and they will speak with confidence in the matter, as though it was the duty of the physician. But let me

here say that whoever assists, directly, or indirectly, in producing abortion, is a *murderer* at heart, and should be condemned as such. Abortion cannot be produced without great danger of death.

In making up our conclusion in reference to danger, and the opportunity of treating our patient successfully, we must look to the general health. If the health is good, and the patient has not aborted before, and she has not lost much blood, the chances are good. We should at all times be very careful about the amount of blood lost; for on this the success of our treatment depends. Every case of abortion with profuse bleeding is extremely dangerous. Now, if the contraction of the womb is spasmodic, or irregular, and lasting only a few moments, it is not likely to produce abortion; but if the pains resemble labor pains, by being long and regular, and produce complete contraction of the womb, then we may look for miscarriage.

The symptoms of this disease are many, but the most marked are the contraction of, and the flooding from the womb. Then, again, a woman may judge that she is about to miscarry if the above symptoms are present, and then the sympathetic feelings are all gone that generally attend pregnancy, such as morning sickness. When this happens we may draw our conclusions that our patient is about to abort. The character of the pains has a great deal to do with making up the symptoms. At first they may be very light and only momentary, and in the first stage of

this disease, we may expect to do the most good with our treatment; but after a while, if they are not stopped, they will gain more strength and power, and the flow from the womb is in proportion to the force and character of the pains.

In treating this disease it should be in accordance with the facts in each particular case. If our patient is known to have aborted before at a particular time, then everything should be done to prevent it by certain rules and regulations. If lifting, walking, or washing has been the cause before, this all should be avoided, and the patient kept quiet; and this can only be done by the greatest care, for it will come on when we are not thinking about it. But if we can carry our patient (who has been in the habit of aborting) past the sixth month, it is quite likely she will go to her full time.

It is not absolutely necessary for a woman of this kind to remain in bed at all times, yet it is best for her to stay in her room and remain as much as possible in a lying position, for if she does not take this particular care of herself, it is not likely that she will go to her full time. Her running about from house to house, and from room to room, will expose her to some of those causes without her knowledge.

We would say that after the womb has begun to contract, and we are satisfied that they are true pains, then we should use our best means, or treatment, to quiet them, and, if possible, to restore the natural condition to the parts. We should make ourselves fa-

miliar with all the facts connected with each case, and the cause, whether accidental in the way of falls or blows, or if a case of habitual abortion, and notice very particularly the character of the discharge and pains. This should all be done; yet there is nothing, as a general thing, more unsatisfactory than to stop a case of abortion after it has once commenced. It is almost sure to continue until the contents of the womb has been expelled, and this will be the case every time if the membrane has been ruptured and much blood be lost.

Now it should be remembered that we have a great many pains in the small of the back and region of the womb that have nothing to do with abortion. The pains that we have been speaking about are those in the muscular walls of the womb; they have their origin there, and they remain there, but those spoken of lastly have nothing to do with the womb, yet if not attended to in their early stages, will be transferred or communicated to the womb, and bring on pains peculiar to abortion. It is in those last cases that we are to expect our good effects from properly directed treatment.

TREATMENT.

In this we may say that a great many forms or plans have been given by different authors, and the same rules will hold good in this disease as in others. Where we have a disease so grave as this, we have also

a great many kinds of treatment. But something more is now required than the horizontal position and being kept quiet; yet this should never be forgotten in any case after once commenced. If the case continues we are required to go to work in earnest and not be satisfied with merely treating symptoms—our patient is now flooding to death. After she has been placed in bed in a cool room, and made quiet, we should use opium in one grain doses every forty or fifty minutes until the pains have been overcome, or until the woman is completely under the influence of the medicine. The patient should have two or three pillows under her head if she has lost much blood; and if she shows signs of fainting, give brandy in large doses. Nothing is safer in this trouble, particularly in those dangerous cases, than opium and brandy, provided enough is given; yet we should not be careless or reckless, but should watch with care all the symptoms, and give those medicines accordingly. It is said that brandy will overcome the vertigo of the head, or overcome the fainting.

In those cases where alarming flooding begins with the pains, we should give up at once the treatment to save the ovum, and turn all our attention to the safety of the mother, for all our exertion, after flooding has been established, to save the conception will be of no use, and will at last prove in vain; therefore we should go to work at once for the mother's safety. Everything that is used, in the way of washes, drinks, or baths, should be cold. Warm applications of all

kinds should be avoided. Give opium and brandy as directed above, and require your patient to remain in bed, without moving either hand or foot, until you have the flood arrested, and the patient safe from danger. Any or all force or violence to bring away the ovum must be avoided, and in fact it must not be done. If we resort to such means as that to accomplish the extraction, we will find when it is too late that it will be followed by the death of our patient. Let her alone, keep her quiet, and give the opium and brandy, and trust to the effort of nature. If she has not flooded too much before you began the treatment, it is reasonable to suppose that she will get well. I am inclined to think that in a great many of those dangerous cases more harm than good is done by getting too eager. We become frightened and do too much. Mechanical means that are calculated to extract the ovum from its uterine attachments, will do *harm*; and this word seems too mild to use with reference to such treatment—it will put the life of our patient in danger at once, and should never be done. Some very good writers recommend the use of ergot of rye. When the case appears to be tedious, and where the flooding is not too great, this medicine is given to hasten and compel the expulsion of the ovum; but I am inclined to think that kind of treatment, as well as mechanical, is calculated to do a great deal of harm, and we had better be content with mild forms of treatment, and give plenty of time for nature to bring about those changes; and then

if the case does not terminate as favorably as we would wish it to do, we feel as if we had done no harm, and that all we can do in those cases is to assist the changes that nature is trying to bring about.

Now in those cases of dangerous flooding, after everything has been employed without any good effect and the flooding is becoming fearfully dangerous, we have but one treatment left, and that is plugging the vagina with anything that will stop the bleeding. One of the best and most effectual plugs is made out of a sponge, well soaked or saturated with alum water. This may be carried up to the mouth of the womb and retained there in such a way as to stop the bleeding. Other material may be used—cotton cloth or anything. We may dip them in olive or sweet oil. This is equally as good or better than the alum. This tampon, or plug, may be permitted to remain (if it does not cause increased action of the muscular walls of the womb, or cause pain to the patient, which it sometimes does) for hours, not more than twenty-four or thirty. If it should prove to be more than the patient can bear, then it should be gently removed with great care, and after its removal should the flooding begin, it must be put back at once, for it is the only thing that will save the woman's life in those cases, and so continue with this plug until your patient gets better.

This tampon, or plug, is not always safe. We find some cases that it will not reach, although it is probably the best thing that can be done. But it

must be remembered that in abortion, after the sixth month, or miscarriage, the womb has attained to such a size that it would hold enough blood to put the woman's life in great danger, and the tampon can do no good to the blood that is shut up in the organ. It is after that organ has been filled and the blood begins to flow out into the vagina that we expect the good effects from the use of the plug.

Now we will find cases of exhaustion of the system to such a degree as to require stimulants such as brandy or whisky, according to symptoms. Give it for same effect, much or little, and it may be given with milk or eggs. In those cases that last for a week or more, if something of this kind is not done for the purpose of supporting the system, the vital forces will give way and the patient dies from exhaustion.

I always recommend good diet, not only in this disease but in all others, and I am not so easily frightened with stimulants and a supporting plan of treatment as some are, for I think on general principles I can do more with good diet, good care, and good nursing, than I can with all the medicine in the world. I think that the great fault or lack of success of the practice of the present day is that we want to do too much, and use too much strong medicine, without giving plenty of time, with care, for the patient to get well.

“Our success,” says a certain author, “will depend on the way we abandon heroic treatment,” and I be-

lieve it. People have got in the habit of taking too much medicine.

We are often called to attend cases of abortion after the pains have been at work for hours, or days, and the woman has lost a great deal of blood. We do not know whether or not the membranes have been ruptured and the ovum lost. In those cases we should be very careful to examine any clot of blood that has been passed from the vagina, and we should take some pains with this examination, for it is this knowledge that will direct our treatment, for if we are satisfied that the ovum has been expelled, then we should direct all our attention to the safety of the mother.

We have stated above that no force should be made with instruments, or otherwise, for the purpose of extracting the ovum from the uterine attachments, and we should be particular also with reference to the membranes. They should not be burst or otherwise injured. If they are kept whole the ovum and after-birth will come away together and the womb will then contract and all our troubles are over; but the danger is in the bursting of the membranes containing the ovum, and its immediate expulsion. The after-birth will in all those cases be retained, and is the cause of all the trouble, or as a general thing they will be retained. Then again the membranes may be ruptured and the ovum be expelled, with part of the placenta, or after-birth, and the other part retained. This is a very unfortunate result, for as long as any part of the placenta remains, the flooding will con-

time and the woman's life is in danger. We should use all our best efforts to have it all come away together, and this may be done, if we give ourselves plenty of time in the treatment of the case. Give something to quiet the pains and let the natural contraction of the womb do the work, and if the worst comes to the worst use the tampon or plug.

Some very good writers recommend an instrument in the shape of a hook introduced into the womb, and by its use the detached portions be removed; but I am inclined to think that those instructions were never intended to go any farther than the book they were written in. I do not think they intended that the hooks should be used; it is a recommendation that should never leave the paper that it is written on. We have a great many of those paper recommendations, such as washing out the womb with a syringe, using astringents, such as nitrate of silver in warm or cold water; and I am persuaded that the patient would be better if such recommendations were left in the books. The idea of introducing the hand or an instrument in the womb in cases of abortion before the sixth month is, I think, out of the question.

I would say one thing about the after-birth that is retained for so long in the womb after the ovum has been expelled. It must have, or as a general thing it has some attachment to the womb, and its life is kept up, for it will not undergo decomposition to any considerable degree. Every one knows, who has had much experience, that those after-births may be re-

tained for weeks and then be expelled with as much life as when in the first days of the rupture.

In concluding my remarks on this chapter I would beg to repeat what I have said about brandy and opium, and also the use of instruments in forcing the after-birth away from its uterine attachments. This must not be done; the great danger is in such treatment. Place the woman in bed in a cold room, and if the attachments remain, use opium; it will keep blood in the brain, and the brandy will stimulate and support the powers of life.

CHAPTER XXX.

CONCLUDING REMARKS.

I have endeavored in writing this work to make everything plain and simple, and at the same time clear and distinct; and to make an impression on the minds of my readers, to make them familiar with this important and much neglected subject. My aim has been to give, first a general history of all diseases I have treated, then the causes, conclusions, and treatment; then to give some general rules for the government of all patients during the different stages of those troubles, without which all our efforts for good would be in vain, for all the medicine in the world will never cure a disease without proper care and attention on the part of the patients themselves. This theory is gaining ground every day among scientific practitioners, and also with the more intelligent masses of the people. It is in proportion to our information or ignorance that we have confidence in preparations or compounds called medicines. I think if we would have less confidence in such medicines,

and more in good care and attention to our habits of life, we would get along much better. We are apt to reverence things that are dark and mysterious, and abhor everything that is made simple and plain. We forget our education, and run after signs in the moon and quack preparations, more particularly if they have some superstitious name, such as Indian pills, wizard oil, or rattlesnake grease, thinking that they convey some charm or unwritten knowledge. I think the time has come for us to use our judgment and reason and be consistent in all things. Throw away and give up those old sayings—they will do us no good; they belong to the dark ages of the world.

In writing this work I have been just as plain and simple as it was possible for me to be. I have, however, used some medical words which may appear strange, but that could not very well be avoided. All that is required is for the reader to refer to Webster's Dictionary.

PRESCRIPTIONS.

For General Debility, accompanying nearly all
Womb Diseases.

No. 1. R. Tincture of iron, 20 drops in a table-
spoonful of water, three times a day,
after eating.

This may be given in any disease.

No. 2. R. Tinct. columbo }
“ gentian } a a. oz. i.
whisky oz. vi. Mix.
S. Teaspoonful every three hours.

No. 3. R. Tinct. cinnamon, }
“ cinchona, } a a. oz. i.
whisky oz. vi. Mix.
S. Teaspoonful every 4 hours.

No. 4. R. Aromatic sulphuric acid, oz. i.
S. 20 drops in a wineglassful of water,
three times a day.

Good for night sweats and all debility.

No. 5. R. Tincture cinchona, }
“ ginger, } a a. oz. i.
whisky, oz. vi. Mix.
S. Teaspoonful every 4 hours.

For Amenorrhœa use tonic treatment prescriptions
Nos. 1, 2, 3, or 5.

Menorrhagia, abundant Menstruation long continued.

No. 6. R. Tincture cinchona, }
“ opii, camph., } a a. oz. i.
(or paregoric), }
sherry wine oz vi. Mix.
S. Teaspoonful every 4 hours.

Dysmenorrhœa, or painful Menstruation.

No. 7. R. Tinct. opii camph, }
 " cinchona, } a a. oz. i. Mix.
 S. Teaspoonful every 3 hours.

No. 8. R. Fluid extract black snake-root, oz. i.
 S. 20 drops three times a day in table-
 spoonful water.

This is one of the best prescriptions for this fear-
 ful disease.

White Liniment, for Sprains, Bruises, and Ulcers.

No. 9. R. Olive oil, }
 aqua ammonia, } a a. oz. i. Mist.
 tinct. camphor, }
 S. Rub the parts 3 or 4 times a day.

Liniment for Neuralgia, Rheumatism, and all pains
 in the back or sides.

No. 10. R. Tinct. aconite, oz. ii.
 Chloroform, oz. i. Mist.
 Rub 3 or 4 times a day with a feather.

Use with great care—poison.

Common Diarrhœa.

No. 11. R. Tinct. opii camph, }
 " cinchona, } a a. oz. i. Mist.
 S. Teaspoonful every 3 or 4 hours.

Chronic Diarrhœa.

No. 12. R. Tinct. iron, oz. i. }
 pure water, oz. vi. } Mist.
 S. Teaspoonful every 4 hours.

No. 13. R. Nitric acid, dr. ii. }
 pure water, oz. vi. } Mist.
 S. Half teaspoonful, in tablespoonful
 water, 4 times a day.

One of the best prescriptions for chronic diarrhœa.

No. 14. R. Aromatic sulphuric acid, oz. i.
pure water, oz. vi. Mist.
S. Teaspoonful every 4 hours.
For Cramp Colic, with Diarrhœa.

No. 15. R. Compound spirits ether, oz. i.
Tinct. opii, camph, oz. iii. Mist.
Teaspoonful every 2 hours, in water.

Bronchitis, Phthisic, and Inflammation of the Mucous
Mémbrane of the Lungs.

No. 16. R. Iodide potassium, dr. iv.
pure water, oz. vi. Mist.
S. Teaspoonful 3 times a day.

This is one of the best prescriptions for those diseases, and should be used in asthma for a long time, as it will help nearly every case.

No. 17. R. Bromide potassium, oz. i.,
tinct. cinchona, oz. i.,
pure water, oz. vi. Mist.
S. Teaspoonful 3 times a day.

For all female diseases or weakness, with pain in the small of the back, side, or head, with want of sleep, accompanied with or without the whites. This prescription should be used for three or four weeks.

Summer Complaint in Children.

No. 18. R. Creta preparata, dr. ii.,
Tinct. opii, camph. oz. i. Mist.
S. 20 drops every 4 hours.

Lung Balsam—for all Coughs and Lung Diseases;
one of the best in use.

No. 19. R. Syrup tolu, }
 “ scillæ, } a a. oz. i. Mist.
 tinct. opii, camph, }
S. Teaspoonful every three hours,

Kidney Diseases.

No. 20. R. Nitrate potassi, oz. i.,
 tinct. cinchona, oz. i.,
 aqua pura, oz. vi. Mist.
 S. Tablespoonful every 4 hours.

No. 21. R. Tinct. opii, camph. }
 spts. ether compound, } a a. oz. i.,
 tinct. cinnamon, oz. ii. Mist.
 S. 20 drops every 4 hours.

An excellent soothing syrup for children.

No. 22. R. Tinct. camphor, }
 " rhei, } Mist.
 " opii, a a. oz. i. }

From 20 to 60 drops every two hours, until the disease is arrested, increasing the dose according to symptoms. Excellent for cholera morbus, cramp colic, or first stages of Asiatic cholera.

Tasteless Worm Destroyer.

No. 23. R. Santonin, dr. iv.,
 simple syrup, oz. iv. Mist.
 S. Half teaspoonful twice a day.

A pleasant, safe, and sure cure for worms in children. This is one of the best worm medicines that has ever been prepared. Nearly all of the patent worm medicines are some form of this prescription. Use it in every case of worms, without fear.

Ague Cure.

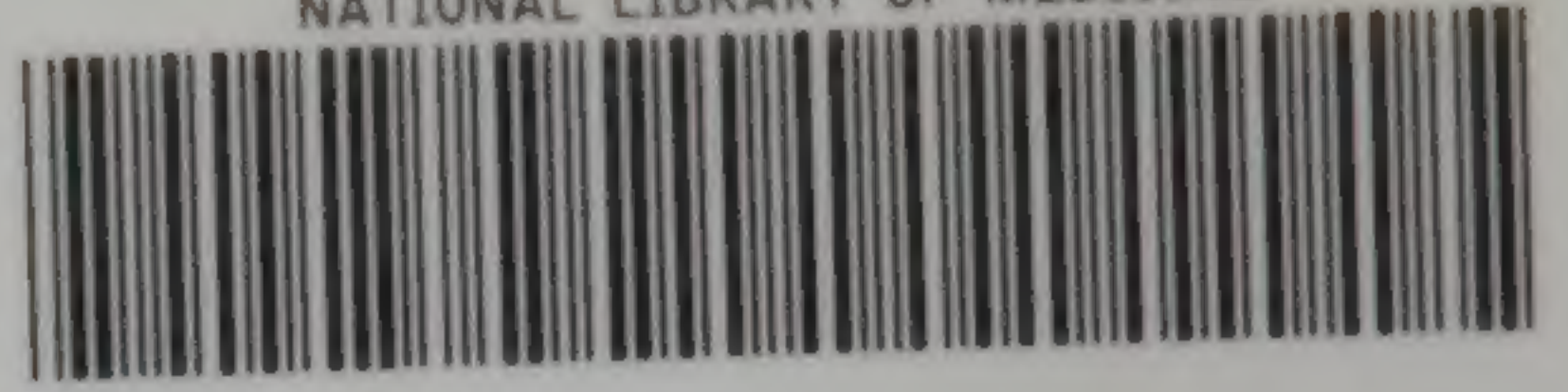
No. 24. R. Quinea sulphas, gr. xi,
 Aromatic sulphuric acid, dr. i.,
 whisky, oz. i. Mist.
 S. Teaspoonful every 3 hours.

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